Ref. Certif. No.

**DK-28210-M2-UL**

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

SYSTEME CEI D'ACCEPTATION MUTUELLE DE CERTIFICATS D'ESSAIS DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC

## CB TEST CERTIFICATE CERTIFICAT D'ESSAI OC

| | |
|---|---|
| Product<br>Produit | Switching Power Supply |
| Name and address of the applicant<br>Nom et adresse du demandeur | BRIDGEPOWER CORP<br>964 GOSAEK-DONG GWONSEON-GU SUWON-SI<br>GYEONGGI-DO 441-813 KOREA |
| Name and address of the manufacturer<br>Nom et adresse du fabricant | BRIDGEPOWER CORP<br>964 GOSAEK-DONG GWONSEON-GU SUWON-SI<br>GYEONGGI-DO 441-813 KOREA |
| Name and address of the factory<br>Nom et adresse de l'usine<br>Note: *When more than one factory, please report on page 2*<br>Note: *Lorsque il y plus d'une usine, veuillez utiliser la 2ème page* | BRIDGEPOWER CORP<br>964 GOSAEK-DONG GWONSEON-GU SUWON-SI<br>GYEONGGI-DO 441-813<br>KOREA<br>☒ Additional Information on page 2 |
| Ratings and principal characteristics<br>Valeurs nominales et caractéristiques principales | See Page 3 |
| Trademark (if any)<br>Marque de fabrique (si elle existe) | None |
| Type of Manufacturer's Testing Laboratories used<br>Type de programme du laboratoire d'essais constructeur | |
| Model / Type Ref.<br>Ref. De type | Models CENB1100********, MENB1100********,<br>JMW1100*********, JPW1100*********,<br>See Page 2 |
| Additional information (if necessary may also be reported on page 2)<br>Les informations complémentaires (si nécessaire,, peuvent être indiqués sur la 2ème page | ☒ Additional Information on page 3 |
| A sample of the product was tested and found to be in conformity with<br>Un échantillon de ce produit a été essayé et a été considéré conforme à la | IEC 60950-1(ed.2), IEC 60950-1(ed.2);am1 |
| As shown in the Test Report Ref. No. which forms part of this Certificate<br>Comme indiqué dans le Rapport d'essais numéro de référence qui constitue partie de ce Certificat | E300305-A33-CB-4 issued on 2013-01-16 |

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme **National de Certification**

☐ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2013-01-16
Original Issue Date: 2012-09-24

Signature:

Jan-Erik Storgaard

Model Details:
CENB1100 * ** ** * **
(b) (c) (d) (f) (e)

(b) means design revision changes, may be A to Z;
(c) means output voltages, may be 12, 13, 15, 16, 18,19, 24 or 48;
(d) means standards output cord options, may be 00 to 99;
(e) means custom options, may be 00 to 99 or AA to ZZ.
(f) means class type, maybe F(ClassI) or Q (ClassII) or N(ClassII)

JMW1100 * * ** ** * **
(a) (b) (c) (d) (f) (e)

(a) means custom options, may be A to Z;
(b) means design revision changes, may be A to Z;
(c) means output voltages, may be 12, 13, 15, 16, 18,19, 24 or 48;
(d) means standards output cord options, may be 00 to 99;
(e) means custom options, may be 00 to 99 or AA to ZZ.
(f) means class type, maybe F(ClassI) or Q (ClassII) or N(ClassII)

JPW1100 * * ** ** * **
(a) (b) (c) (d) (f) (e)

(a) means custom options, may be A to Z;
(b) means design revision changes, may be A to Z;
(c) means output voltages, may be 12, 13, 15, 16, 18,19, 24 or 48;
(d) means standards output cord options, may be 00 to 99;
(e) means custom options, may be 00 to 99 or AA to ZZ.
(f) means class type, maybe F(ClassI) or Q (ClassII) or N(ClassII)

MENB1100 * ** ** * **
(b) (c) (d) (f) (e)

(b) means design revision changes, may be A to Z;
(c) means output voltages, may be 12, 13, 15, 16, 18,19, 24 or 48;
(d) means standards output cord options, may be 00 to 99;
(e) means custom options, may be 00 to 99 or AA to ZZ.
(f) means class type, maybe F(ClassI) or Q (ClassII) or N(ClassII)

Factories:
WENDENG JEIL ELECTRONICS CO LTD
DONG SHOU GUANGZHOU LU KAIFA-QU WENDENG-SHI SHANDONG
CHINA

**Additional information (if necessary)**
**Information complémentaire (si nécessaire)**

☐ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

**For full legal entity names see www.ul.com/ncbnames**

Date: 2013-01-16
Original Issue Date: 2012-09-24

Signature:
Jan-Erik Storgaard

Ref. Certif. No.

**DK-28210-M2-UL**

Ratings:
Input Rating: 100-240 Vac, 50-60 Hz, 2.0 A
Output Rating: 12.0 Vdc, 7.5 A or
13.0 Vdc, 6.92A or
15.0 Vdc, 6.4 A or
16.0Vdc, 6.0 A or
18.0 Vdc, 5.6 A or
19.0 Vdc, 5.2A or
24.0 Vdc, 4.2 A or
48.0 Vdc, 2.1A

Additional Information:
The original report was modified to include the following changes/additions:
Add class of category.
Correct required clearance and creepage in Table.

Additionally evaluated to EN60950-1:2006/A11:2009/A1:2010/A12:2011;
National Differences specified in the CB Test Report.

**Additional information (if necessary)**
**Information complémentaire (si nécessaire)**

☐ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

**For full legal entity names see www.ul.com/ncbnames**

Date: 2013-01-16
Original Issue Date: 2012-09-24

Signature:
Jan-Erik Storgaard

**Test Report issued under the responsibility of:**

# TEST REPORT
# IEC 60950-1
# Information technology equipment - Safety - Part 1: General requirements

| | |
|---|---|
| **Report Reference No** ..... : | E300305-A33-CB-4 |
| Date of issue ..... : | 2012-09-24 |
| Total number of pages ..... : | 11 |
| **CB Testing Laboratory** ..... : | UL Korea, Ltd. |
| Address ..... : | #808, Manhatan Building, 36-2 Yeouido-Dong, Yeongdeungpo-Gu, Seoul 150-749, Korea |
| **Applicant's name** ..... : | BRIDGEPOWER CORP |
| Address ..... : | 964 GOSAEK-DONG<br>GWONSEON-GU<br>SUWON-SI GYEONGGI-DO 441-813 KOREA |
| **Test specification:** | |
| Standard ..... : | IEC 60950-1:2005 (2nd Edition); Am 1:2009 |
| Test procedure ..... : | CB Scheme |
| Non-standard test method ..... : | N/A |
| **Test Report Form No.** ..... : | IEC60950_1B |
| Test Report Form originator ..... : | SGS Fimko Ltd |
| Master TRF ..... : | 2010-04 |

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If this test Report is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

**This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.**

| | |
|---|---|
| **Test item description** ..... : | Switching Power Supply |
| Trade Mark ..... : | None |
| Manufacturer ..... : | BRIDGEPOWER CORP<br>964 GOSAEK-DONG<br>GWONSEON-GU<br>SUWON-SI GYEONGGI-DO 441-813 KOREA |
| Model/Type reference ..... : | Models CENB1100********, MENB1100********, and JMW1100********* and JPW1100********* |
| Ratings ..... : | Input Rating: 100-240 Vac, 50-60 Hz, 2.0 A<br>Output Rating: 12.0 Vdc, 7.5 A or<br>13.0 Vdc, 6.92A or<br>15.0 Vdc, 6.4 A or<br>16.0Vdc, 6.0 A or<br>18.0 Vdc, 5.6 A or<br>19.0 Vdc, 5.2A or<br>24.0 Vdc, 4.2 A or<br>48.0 Vdc, 2.1A |

| **Testing procedure and testing location:** | | | |
|---|---|---|---|
| [x] | **CB Testing Laboratory** | | |
| | Testing location / address..... : | UL Korea, Ltd. #808, Manhatan Building, 36-2 Yeouido-Dong, Yeongdeungpo-Gu, Seoul 150-749, Korea | |
| [ ] | **Associated CB Test Laboratory** | | |
| | Testing location / address..... : | | |
| | Tested by (name + signature) ..... : | InYoung Hwang | |
| | Approved by (name + signature) ... : | ByeongUk Lee | |
| [ ] | **Testing Procedure: TMP** | | |
| | Tested by (name + signature) ..... : | | |
| | Approved by (+ signature) ..... : | | |
| | Testing location / address..... : | | |
| [ ] | **Testing Procedure: WMT** | | |
| | Tested by (name + signature) ..... : | | |
| | Witnessed by (+ signature)..... : | | |
| | Approved by (+ signature) ..... : | | |
| | Testing location / address..... : | | |
| [ ] | **Testing Procedure: SMT** | | |
| | Tested by (name + signature) ..... : | | |
| | Approved by (+ signature) ..... : | | |
| | Supervised by (+ signature) ..... : | | |
| | Testing location / address..... : | | |
| [ ] | **Testing Procedure: RMT** | | |
| | Tested by (name + signature) ..... : | | |
| | Approved by (+ signature) ..... : | | |
| | Supervised by (+ signature) ..... : | | |
| | Testing location / address..... : | | |

**List of Attachments**

National Differences (0 pages)

Enclosures (0 pages)

**Summary of Testing:**

No tests were conducted

**Summary of Compliance with National Differences:**

Countries outside the CB Scheme membership may also accept this report.

List of countries addressed: AT, BE, CA, CH, CN, CZ, DE, DK, ES, EU, FI, FR, GB, GR, HU, IE, IL, IT, JP, KR, NL, NO, PL, PT, SE, SG, SI, SK, US

The product fulfills the requirements of: N/A

**Copy of Marking Plate** - Refer to Enclosure titled Marking Plate for copy.

| | |
|---|---|
| **Test item particulars :** | |
| Equipment mobility .....: | movable |
| Connection to the mains .....: | pluggable A |
| Operating condition .....: | continuous |
| Access location .....: | N/A |
| Over voltage category (OVC) .....: | OVC II |
| Mains supply tolerance (%) or absolute mains supply values .....: | +10%, -10% |
| Tested for IT power systems .....: | Yes(for Norway only) |
| IT testing, phase-phase voltage (V) .....: | 230 Vac |
| Class of equipment .....: | Class I (earthed) or ClassII(double insulated) |
| Considered current rating of protective device as part of the building installation (A) .....: | 2.0 |
| Pollution degree (PD) .....: | PD 2 |
| IP protection class .....: | IP X0 |
| Altitude of operation (m) .....: | up to 5000m |
| Altitude of test laboratory (m) .....: | N/A |
| Mass of equipment (kg) .....: | 0.7 |
| **Possible test case verdicts:** | |
| - test case does not apply to the test object .....: | N / A |
| - test object does meet the requirement .....: | P(Pass) |
| - test object does not meet the requirement .....: | F(Fail) |
| **Testing:** | |
| Date(s) of receipt of test item .....: | N/A |
| Date(s) of Performance of tests .....: | N/A |

**General remarks:**

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the testing laboratory.

"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.

Throughout this report a point is used as the decimal separator.

**Manufacturer's Declaration per Sub Clause 6.25 of IECEE 02:** Yes

The application for obtaining a CB Test Certificate includes more than one factory and a declaration form the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided .....

When differences exist, they shall be identified in the General Product Information section.

**Name and address of Factory(ies):** BRIDGEPOWER CORP
964 GOSAEK-DONG
GWONSEON-GU

SUWON-SI GYEONGGI-DO 441-813 KOREA

WENDENG JEIL ELECTRONICS CO LTD
DONG SHOU GUANGZHOU LU
KAIFA-QU
WENDENG-SHI SHANDONG CHINA

**GENERAL PRODUCT INFORMATION:**

**Report Summary**

The original report was modified on 2013-01-16 to include the following changes/additions:
E300305-A33-CB-4, Correction2
- Add class of category ; ClassII(double insulated) due to missing.
- Correct required clearance and creepage in table 2.10.2 and 2.10.3 from 7.7 to 7.1 due to error.

**Product Description**

Switching Power Supply (AC/DC adapter), consists of electronic components mounted on PWB, a switching transformer and electronic components mounted on PWB, housed with a plastic enclosure.

**Model Differences**

Models CENB1100********, MENB1100********, and JMW1100********* and JPW1100********* (Where * may be alphanumeric, "for marketing purpose and no impact safety related critical components and constructions")

Models CENB1100********, MENB1100********, and JMW1100********* are identical to JPW1100*********, except model designations as follows;

Nomenclature

JPW1100 * * ** ** * **
(a) (b) (c) (d) (f) (e)
or JMW1100 * * ** ** * **
(a) (b) (c) (d) (f) (e)
or CENB1100 * ** ** * **
(b) (c) (d) (f) (e)
or MENB1100 * ** ** * **
(b) (c) (d) (f) (e)
(a) means custom options, may be A to Z;
(b) means design revision changes, may be A to Z;
(c) means output voltages, may be 12, 13, 15, 16, 18,19, 24 or 48;
(d) means standards output cord options, may be 00 to 99;
(e) means custom options, may be 00 to 99 or AA to ZZ.
(f) means class type, maybe F(ClassI) or Q (ClassII) or N(ClassII)

The marked models as 12, 13, 15, 16, 18, 19 , 24 and 48 on (c) nomenclature are identical individually, except model designations, output ratings, transformers and secondary circuits.

The Models JPW1100**13*****, JPW1100**16*****, CENB1100*13*****,CENB1100*16*****, JMW1100**13*****, JMW1100**16*****, MENB1100*13*****, and MENB1100*16***** are identical to Model JPW1100**12***** except for model designation, output ratings, transformers and secondary circuits.

The model JPW1100**19*****, CENB1100*19*****, JMW1100**19*****, MENB1100*19***** are identical to JPW1100**12***** except for model designation, output ratings, transformers and secondary circuits.

**Additional Information**

Maximum Normal Load Condition: Rated Output Currents
JPW1100KA1200F01: 12.0 Vdc, 7.5 A;
JPW1100KA1500F01: 15.0 Vdc, 6.4 A;
JPW1100KA1800F01: 18.0 Vdc, 5.6 A;
JPW1100KA2400F01: 24.0 Vdc, 4.2 A.

This equipment is not provided with user's manual.

Procedure Deviation:
Argentina*, Australia / New Zealand, Austria**, Belgium**, China, Czech Republic**, Denmark, Finland, France**, Germany, Greece**, Group, Hungary*, India*, Ireland*, Israel*, Italy*, Japan*, Kenya*, Korea, Malaysia*, Netherlands**, Norway, Poland*, Portugal*, Singapore*, Slovakia**, Slovenia*, Spain*, Sweden, Switzerland**, and United Kingdom.
* - No National Differences Declared, ** - Only Group Differences.

Before placing the products in the different countries, the manufacturer has to guarantee that:
1. Operating instructions and warnings are written in an accepted language of the certain country.
2. The equipment is in compliance with the national standards of the certain country.

E300305-A33-CB-3, Reissue
- Added Thermal Fuse (Seki Controls Co., Ltd., Type ST-22) in critical component list.

E300305-A33-CB-4, Reissue
- Upgrade report from IEC 60950-1 2nd edition to IEC 60950-1 2nd edition, Amendment1
- Altitude of operation is up to 2000m to up to 5000m refer to IEC 60664-1 table A.2
- Humidity test was conducted at 40 degreeC, 95% , 120hours for China Deviation.
- National Difference for China is revised.
- Tma is changed from 30 degreeC to 35 degreeC

E300305-A33-CB-4, Correction1
- Add optical isolator certification information under mark of conformity section due to missing
- Add bobbin's manufacturer name due to missing
- Correct optical isolator CR,CL from "thermal cycling conducted " to measured CR, CP in table 2.10.2 , 2.10.3 and 2.10.4 due to typo error
- Delete Enclosure type HN-1064W(+) in critical component list due to typo error
- Correct electric strength table due to typo error

E300305-A33-CB-4, Amendment 1(12CA56785)
- Alternate appliance inlet type SS-120A,RF-180 by Rong Feng Industrial Co., Ltd
- Alternate linefilter 3025671B
- Alternate Y-Capacitor(CY1,CY2) type SE or SB , 250V, maximum 1500pF by Success Electronics Co., Ltd
- Alternate Y-Capacitor(CY1,CY2) type KX or KY , 250V, maximum 1500pF by Murata Mfg.Co., Ltd
- Alternate Y-Capacitor(CY3,CY4) type SE or SB , 250V, maximum 1000pF by Success Electronics Co., Ltd
- Alternate Y-Capacitor(CY3,CY4) type KX or KY , 250V, maximum 1000pF by Murata Mfg.Co., Ltd

- Add electrical output rating ; 48Vdc/2.1A (transformer type 3025579005A ) ; JPW1100**48*****, JMW1100**48*****, CENB1100*48*****,MENB1100*48*****
- Add insulator sheet and shield.
- Alternate ClassII type ; JPW1100******Q***, JMW1100******Q**, CENB1100*****Q**,MENB1100*****Q**,JPW1100******N***, JMW1100******N**, CENB1100*****N**,MENB1100*****N**
- Add supplementary information in table 5.2, table 2.10.3 and 2.10.4 , optical isolator table(1,5,1),table C.2
- Revise manufacturer declaration letter

E300305-A33-CB-4, Correction2
- Add class of category ; ClassII(double insulated) due to missing.
- Correct required clearance and creepage in table 2.10.2 and 2.10.3 from 7.7 to 7.1 due to error.

**Technical Considerations**

- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 35
- The means of connection to the mains supply is: Pluggable A, Detachable Power Supply Cord,
- The product is intended for use on the following power systems: TN and IT (for Norway only),
- The equipment disconnect device is considered to be: Appliance Inlet
- The product was investigated to the following additional standards: EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 (which includes all European national differences, including those specified in this test report).

Abbreviations used in the report:

| | | | |
|---|---|---|---|
| - normal condition | N.C. | - single fault condition | S.F.C |
| - operational insulation | OP | - basic insulation | BI |
| - basic insulation between parts of opposite polarity: | BOP | - supplementary insulation | SI |
| - double insulation | DI | - reinforced insulation | RI |

Indicate used abbreviations (if any)

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| 2.10.3 and 2.10.4 | **TABLE: clearance and creepage distance measurements** | | | | | Pass |
|---|---|---|---|---|---|---|
| Clearance (cl) and creepage distance (cr) at/of/between: | U peak (V) | U r.m.s. (V) | Required cl (mm) | cl (mm) | Required cr (mm) | cr (mm) |
| Functional: | | | | | | |
| Clearance (cl) and creepage distance (cr) at/of/between: | U peak (V) | U r.m.s. (V) | Required cl (mm) | cl (mm) | Required cr (mm) | cr (mm) |
| Basic/supplementary: | | | | | | |
| Clearance (cl) and creepage distance (cr) at/of/between: | U peak (V) | U r.m.s. (V) | Required cl (mm) | cl (mm) | Required cr (mm) | cr (mm) |
| Reinforced: | | | | | | |
| Clearance (cl) and creepage distance (cr) at/of/between: | U peak (V) | U r.m.s. (V) | Required cl (mm) | cl (mm) | Required cr (mm) | cr (mm) |
| Model JPW1100KA1500F01 | - | - | - | - | - | - |
| T1, # 8 to # 14, 15, 16 | 510 | 359 | 7.1 | 8.0 | 7.8 | 8.0 |
| PSU1, primary to secondary | 360 | 176 | 5.92 | 6.0 | 5.92 | 6.0 |
| Model JPW1100KA2400F01 | - | - | - | - | - | - |
| T1, # 7 to # 14, 15, 16 | 540 | 379 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1, # 8 to # 14, 15, 16 | 535 | 380 | 7.1 | 8.0 | 7.8 | 8.0 |
| PSU1, primary to secondary | 370 | 186 | 5.92 | 6.0 | 5.92 | 6.0 |
| JPW1100KB1200F01 | - | - | - | - | - | - |
| T1 pin1 / T1 pin 11, 12,13 | 385 | 184 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin1 / T1 pin 14, 15,16 | 430 | 185 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin 2 / T1 pin11,12,13 | 435 | 184 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin2 / T1 pin 14,15,16 | 500 | 190 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin6 / T1 pin 11,12,13 | 410 | 303 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin6 / T1 pin 14, 15, 16 | 420 | 304 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin8 / T1 pin 11,12,13 | 610 | 351 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin8 / T1 pin14,15,16 | 620 | 367 | 7.1 | 8.0 | 7.8 | 8.0 |
| PSU pin1 / PSU pin3 | 370 | 178 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin1 / PSU pin4 | 370 | 178 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin3 | 370 | 178 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin4 | 370 | 178 | 5.92 | 6.0 | 5.92 | 6.0 |
| JPW1100KB1300F01 | - | - | - | - | - | - |
| T1 pin1 / T1 pin 11, 12,13 | 370 | 183 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin1 / T1 pin 14, 15,16 | 425 | 184 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin 2 / T1 pin11,12,13 | 435 | 183 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin2 / T1 pin 14,15,16 | 500 | 188 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin6 / T1 pin 11,12,13 | 410 | 301 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin6 / T1 pin 14, 15, 16 | 415 | 302 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin8 / T1 pin 11,12,13 | 625 | 354 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin8 / T1 pin14,15,16 | 640 | 369 | 7.1 | 8.0 | 7.8 | 8.0 |
| JPW1100KB1500F01 | - | - | - | - | - | - |
| T1 pin1 / T1 pin 11, 12,13 | 370 | 181 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin1 / T1 pin 14, 15,16 | 440 | 185 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin 2 / T1 pin11,12,13 | 460 | 188 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin2 / T1 pin 14,15,16 | 530 | 197 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin6 / T1 pin 11,12,13 | 410 | 302 | 7.1 | 8.0 | 7.8 | 8.0 |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| T1 pin6 / T1 pin 14, 15, 16 | 420 | 304 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin8 / T1 pin 11,12,13 | 610 | 353 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin8 / T1 pin14,15,16 | 625 | 370 | 7.1 | 8.0 | 7.8 | 8.0 |
| JPW1100KB1600F01 | - | - | - | - | - | - |
| T1 pin1 / T1 pin 11, 12,13 | 370 | 183 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin1 / T1 pin 14, 15,16 | 435 | 188 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin 2 / T1 pin11,12,13 | 455 | 189 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin2 / T1 pin 14,15,16 | 530 | 197 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin6 / T1 pin 11,12,13 | 410 | 298 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin6 / T1 pin 14, 15, 16 | 415 | 300 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin8 / T1 pin 11,12,13 | 595 | 350 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin8 / T1 pin14,15,16 | 620 | 368 | 7.1 | 8.0 | 7.8 | 8.0 |
| PSU pin1 / PSU pin3 | 375 | 183 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin1 / PSU pin4 | 375 | 183 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin3 | 375 | 183 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin4 | 375 | 183 | 5.92 | 6.0 | 5.92 | 6.0 |
| <E300305-A33-CB-2, Amendment3>, 11CA37964 | N/A | N/A | N/A | N/A | N/A | N/A |
| Model ; JPW1100KB1800F01 | N/A | N/A | - | - | - | - |
| T1 pin1 / T1 pin 11, 12,13 | 370 | 180 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin1 / T1 pin 14, 15,16 | 435 | 183 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin 2 / T1 pin11,12,13 | 440 | 183 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin2 / T1 pin 14,15,16 | 510 | 193 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin6 / T1 pin 11,12,13 | 400 | 298 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin6 / T1 pin 14, 15, 16 | 410 | 298 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin8 / T1 pin 11,12,13 | 565 | 356 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin8 / T1 pin14,15,16 | 580 | 377 | 7.1 | 8.0 | 7.8 | 8.0 |
| PSU pin2 / PSU pin3 | 365 | 179 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin4 | 365 | 177 | 5.92 | 6.0 | 5.92 | 6.0 |
| Model ; JPW1100KB1900F01 | N/A | N/A | - | - | - | - |
| T1 pin1 / T1 pin 11, 12,13 | 370 | 180 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin1 / T1 pin 14, 15,16 | 440 | 183 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin 2 / T1 pin11,12,13 | 435 | 183 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin2 / T1 pin 14,15,16 | 515 | 193 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin6 / T1 pin 11,12,13 | 405 | 304 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin6 / T1 pin 14, 15, 16 | 425 | 307 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin8 / T1 pin 11,12,13 | 565 | 365 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin8 / T1 pin14,15,16 | 590 | 387 | 7.1 | 8.0 | 7.8 | 8.0 |
| PSU pin1 / PSU pin3 | 365 | 178 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin1 / PSU pin4 | 365 | 177 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin3 | 365 | 177 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin4 | 365 | 178 | 5.92 | 6.0 | 5.92 | 6.0 |
| Model ; JPW1100KB2400F01 | N/A | N/A | - | - | - | - |
| T1 pin1 / T1 pin 11, 12,13 | 370 | 181 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin1 / T1 pin 14, 15,16 | 450 | 187 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin 2 / T1 pin11,12,13 | 440 | 185 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin2 / T1 pin 14,15,16 | 530 | 200 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin6 / T1 pin 11,12,13 | 390 | 291 | 7.1 | 8.0 | 7.8 | 8.0 |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| T1 pin6 / T1 pin 14, 15, 16 | 415 | 295 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin8 / T1 pin 11,12,13 | 540 | 356 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin8 / T1 pin14,15,16 | 565 | 383 | 7.1 | 8.0 | 7.8 | 8.0 |
| PSU pin1 / PSU pin3 | 365 | 178 | 5.92 | 6..0 | 5.92 | 6.0 |
| PSU pin1 / PSU pin4 | 365 | 178 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin3 | 365 | 178 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin4 | 365 | 179 | 5.92 | 6.0 | 5.92 | 6.0 |
| <E300305-A33-CB-4, Amendment1>For model ; JPW1100KB4800Q01 | N/A | N/A | N/A | N/A | N/A | N/A |
| T1 pin1 to T1 pin 11,12,13 | 390 | 183 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin1 to T1 pin 14,15,16 | 590 | 208 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin2 to T1 pin 11,12,13 | 470 | 188 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin2 to T1 pin 14,15,16 | 690 | 235 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin6 to T1 pin 11,12,13 | 410 | 300 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin6 to T1 pin 14,15,16 | 460 | 315 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin8 to T1 pin 11,12,13 | 510 | 351 | 7.1 | 8.0 | 7.8 | 8.0 |
| T1 pin8 to T1 pin 14,15,16 | 600 | 390 | 7.1 | 8.0 | 7.8 | 8.0 |
| PSU1 pin1 to PSU1 pin3 | 375 | 174 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU1 pin1 to PSU1 pin4 | 365 | 171 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU1 pin2 to PSU1 pin3 | 370 | 173 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU1 pin2 to PSU1 pin4 | 365 | 171 | 5.92 | 6.0 | 5.92 | 6.0 |
| supplementary information: | | | | | | |

| C.2 | **TABLE: transformers** | | | | | | Pass |
|---|---|---|---|---|---|---|---|
| Loc. | Tested insulation | Working voltage peak /V (2.10.2) | Working voltage rms /V (2.10.2) | Required electric strength (5.2) | Required clearance / mm (2.10.3) | Required creepage distance / mm (2.10.4) | Required distance thr. insul. (2.10.5) |
| T1 | Reinforced (Primary to Secondary) | 690 | 390 | 3000Vac | 7.1 | 7.8 | min. 1 layers or 0.4 mm thickness |
| Loc. | Tested insulation | | | Test voltage / V | Measured clearance / mm | Measured creepage dist./mm | Measured distance thr. insul / mm; number of layers |
| Transformer type number | | | | Enclosure - Miscellaneous ID | | | |
| supplementary information:<br>Tested T1 ; 3025579001A,3025579002A,3025579003A,3025579004A,3025579005A Also complied with clause 2.9.2 humidity test. | | | | | | | |

Ref. Certif. No.

**DK-28210-A1-UL**

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

SYSTEME CEI D'ACCEPTATION MUTUELLE DE CERTIFICATS D'ESSAIS DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC

## CB TEST CERTIFICATE CERTIFICAT D'ESSAI OC

| | |
|---|---|
| Product<br>Produit | Switching Power Supply |
| Name and address of the applicant<br>Nom et adresse du demandeur | BRIDGEPOWER CORP<br>964 GOSAEK-DONG<br>GWONSEON-GU<br>SUWON-SI GYEONGGI-DO 441-813 KOREA |
| Name and address of the manufacturer<br>Nom et adresse du fabricant | BRIDGEPOWER CORP<br>964 GOSAEK-DONG<br>GWONSEON-GU<br>SUWON-SI GYEONGGI-DO 441-813 KOREA |
| Name and address of the factory<br>Nom et adresse de l'usine<br>Note: *When more than one factory, please report on page 2*<br>Note: *Lorsque il y plus d'une usine, veuillez utiliser la 2ème page* | BRIDGEPOWER CORP<br>964 GOSAEK-DONG<br>GWONSEON-GU<br>SUWON-SI GYEONGGI-DO 441-813<br>KOREA<br>☒ Additional Information on page 2 |
| Ratings and principal characteristics<br>Valeurs nominales et caractéristiques principales | See Page 2 |
| Trademark (if any)<br>Marque de fabrique (si elle existe) | None |
| Type of Manufacturer's Testing Laboratories used<br>Type de programme du laboratoire d'essais constructeur | TMP |
| Model / Type Ref.<br>Ref. De type | CENB1100********, JMW1100*********, JPW1100*********, MENB1100********<br>See Page 2 |
| Additional information (if necessary may also be reported on page 2)<br>Les informations complémentaires (si nécessaire,, peuvent être indiqués sur la 2ème page | ☒ Additional Information on page 2 |
| A sample of the product was tested and found to be in conformity with<br>Un échantillon de ce produit a été essayé et a été considéré conforme à la | IEC 60950-1(ed.2), IEC 60950-1(ed.2);am1 |
| As shown in the Test Report Ref. No. which forms part of this Certificate<br>Comme indiqué dans le Rapport d'essais numéro de référence qui constitue partie de ce Certificat | E300305-A33-CB-4 issued on 2012-11-27 |

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme **National de Certification**

☐ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2012-11-27
Original Issue Date: 2012-09-24

Signature:

Jan-Erik Storgaard

Model Details:
CENB1100 * ** ** * **
(b) (c) (d) (f) (e)

(b) means design revision changes, may be A to Z;
(c) means output voltages, may be 12, 13, 15, 16, 18,19, 24 or 48;
(d) means standards output cord options, may be 00 to 99;
(e) means custom options, may be 00 to 99 or AA to ZZ.
(f) means class type, maybe F(ClassI) or Q (ClassII) or N(ClassII)

JMW1100 * * ** ** * **
(a) (b) (c) (d) (f) (e)

(a) means custom options, may be A to Z;
(b) means design revision changes, may be A to Z;
(c) means output voltages, may be 12, 13, 15, 16, 18,19, 24 or 48;
(d) means standards output cord options, may be 00 to 99;
(e) means custom options, may be 00 to 99 or AA to ZZ.
(f) means class type, maybe F(ClassI) or Q (ClassII) or N(ClassII)

JPW1100 * * ** ** * **
(a) (b) (c) (d) (f) (e)

(a) means custom options, may be A to Z;
(b) means design revision changes, may be A to Z;
(c) means output voltages, may be 12, 13, 15, 16, 18,19, 24 or 48;
(d) means standards output cord options, may be 00 to 99;
(e) means custom options, may be 00 to 99 or AA to ZZ.
(f) means class type, maybe F(ClassI) or Q (ClassII) or N(ClassII)

MENB1100 * ** ** * **
(b) (c) (d) (f) (e)

(b) means design revision changes, may be A to Z;
(c) means output voltages, may be 12, 13, 15, 16, 18,19, 24 or 48;
(d) means standards output cord options, may be 00 to 99;
(e) means custom options, may be 00 to 99 or AA to ZZ.
(f) means class type, maybe F(ClassI) or Q (ClassII) or N(ClassII)

Factories:
WENDENG JEIL ELECTRONICS CO LTD
DONG SHOU GUANGZHOU LU KAIFA-QU
WENDENG-SHI SHANDONG
CHINA

Ratings:
Input Rating: 100-240 Vac, 50-60 Hz, 2.0 A
Output Rating: 12.0 Vdc, 7.5 A or 13.0 Vdc, 6.92A or 15.0 Vdc, 6.4 A or 16.0Vdc, 6.0 A or 18.0 Vdc, 5.6 A or 19.0 Vdc, 5.2A or 24.0 Vdc, 4.2 A or 48.0 Vdc, 2.1A

Additional Information:
The original report was modified to include the following changes/additions: add alternate components, add electrical output rating, add new models, add supplementary information in table and revise manufacturer declaration letter. Additionally evaluated to EN 60950-1:2006/A11:2009/A1:2010/A12:2011; National Differences specified in the CB Test Report.

## Additional information (if necessary)
## Information complémentaire (si nécessaire)

☐ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

**For full legal entity names see www.ul.com/ncbnames**

Date: 2012-11-27
Original Issue Date: 2012-09-24

Signature:
Jan-Erik Storgaard

**Test Report issued under the responsibility of:**

# TEST REPORT
# IEC 60950-1
# Information technology equipment - Safety - Part 1: General requirements

| | |
|---|---|
| **Report Reference No** ..... : | E300305-A33-CB-4 |
| Date of issue ..... : | 2012-09-24 |
| Total number of pages ..... : | 44 |
| **CB Testing Laboratory** ..... : | UL Korea, Ltd. |
| Address ..... : | #808, Manhatan Building, 36-2 Yeouido-Dong, Yeongdeungpo-Gu, Seoul 150-749, Korea |
| **Applicant's name** ..... : | BRIDGEPOWER CORP |
| Address ..... : | 964 GOSAEK-DONG<br>GWONSEON-GU<br>SUWON-SI GYEONGGI-DO 441-813 KOREA |
| **Test specification:** | |
| Standard ..... : | IEC 60950-1:2005 (2nd Edition); Am 1:2009 |
| Test procedure ..... : | CB Scheme |
| Non-standard test method ..... : | N/A |
| **Test Report Form No.** ..... : | IEC60950_1B |
| Test Report Form originator ..... : | SGS Fimko Ltd |
| Master TRF ..... : | 2010-04 |

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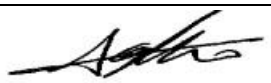
If this test Report is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

**This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.**

| | |
|---|---|
| **Test item description** ..... : | Switching Power Supply |
| Trade Mark ..... : | None |
| Manufacturer ..... : | BRIDGEPOWER CORP<br>964 GOSAEK-DONG<br>GWONSEON-GU<br>SUWON-SI GYEONGGI-DO 441-813 KOREA |
| Model/Type reference ..... : | Models CENB1100********, MENB1100********, and JMW1100********* and JPW1100********* |
| Ratings ..... : | Input Rating: 100-240 Vac, 50-60 Hz, 2.0 A<br>Output Rating: 12.0 Vdc, 7.5 A or<br>13.0 Vdc, 6.92A or<br>15.0 Vdc, 6.4 A or<br>16.0Vdc, 6.0 A or<br>18.0 Vdc, 5.6 A or<br>19.0 Vdc, 5.2A or<br>24.0 Vdc, 4.2 A or<br>48.0 Vdc, 2.1A |

| **Testing procedure and testing location:** | | | |
|---|---|---|---|
| [ ] | **CB Testing Laboratory** | | |
| | Testing location / address..... : | | |
| [ ] | **Associated CB Test Laboratory** | | |
| | Testing location / address..... : | | |
| | Tested by (name + signature) ..... : | | |
| | Approved by (name + signature) ... : | | |
| [x] | **Testing Procedure: TMP** | | |
| | Tested by (name + signature) ..... : | InYoung Hwang | |
| | Approved by (+ signature) ..... : | Frederic Won |  |
| | Testing location / address..... : | BRIDGEPOWER CORP / 964 GOSAEK-DONG GWONSEON-GU SUWON-SI GYEONGGI-DO 441-813 KOREA | |
| [ ] | **Testing Procedure: WMT** | | |
| | Tested by (name + signature) ..... : | | |
| | Witnessed by (+ signature)..... : | | |
| | Approved by (+ signature) ..... : | | |
| | Testing location / address..... : | | |
| [ ] | **Testing Procedure: SMT** | | |
| | Tested by (name + signature) ..... : | | |
| | Approved by (+ signature) ..... : | | |
| | Supervised by (+ signature) ..... : | | |
| | Testing location / address..... : | | |
| [ ] | **Testing Procedure: RMT** | | |
| | Tested by (name + signature) ..... : | | |
| | Approved by (+ signature) ..... : | | |
| | Supervised by (+ signature) ..... : | | |
| | Testing location / address..... : | | |

**List of Attachments**

National Differences (0 pages)

Enclosures (34 pages)

**Summary Of Testing**

Unless otherwise indicated, all tests were conducted at BRIDGEPOWER CORP / 964 GOSAEK-DONG GWONSEON-GU SUWON-SI GYEONGGI-DO 441-813 KOREA.

| | **Tests performed (name of test and test clause)** | **Testing location / Comments** |
|---|---|---|
| | End Product Reference Page | |

General Guidelines

Guide Information Page - Maximum Output Voltage, Current, and Volt Ampere Measurement (1.2.2.1)

Input: Single-Phase (1.6.2)

SELV Reliability Test Including Hazardous Voltage Measurements (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)

Determination of Working Voltage; Working Voltage Measurement (2.10.2)

Thin Sheet Material (2.10.5.9, 2.10.5.10, 2.10.5.6)

Transformer and Wire /Insulation Electric Strength (2.10.5.13)

Stress Relief (4.2.7, 4.2.1)

Heating (4.5.1, 1.4.12, 1.4.13)

Electric Strength (5.2.2)

Transformer Abnormal Operation (5.3.3, 5.3.7b, Annex C.1)

**Summary of Compliance with National Differences:**

Countries outside the CB Scheme membership may also accept this report.

List of countries addressed: AT, BE, CA, CH, CN, CZ, DE, DK, ES, EU, FI, FR, GB, GR, HU, IE, IL, IT, JP, KR, NL, NO, PL, PT, SE, SG, SI, SK, US

The product fulfills the requirements of: N/A

**Copy of Marking Plate** - Refer to Enclosure titled Marking Plate for copy.

| | |
|---|---|
| **Test item particulars :** | |
| Equipment mobility .....: | movable |
| Connection to the mains .....: | pluggable A |
| Operating condition .....: | continuous |
| Access location .....: | N/A |
| Over voltage category (OVC) .....: | OVC II |
| Mains supply tolerance (%) or absolute mains supply values .....: | +10%, -10% |
| Tested for IT power systems .....: | Yes(for Norway only) |
| IT testing, phase-phase voltage (V) .....: | 230 Vac |
| Class of equipment .....: | Class I (earthed) |
| Considered current rating of protective device as part of the building installation (A) .....: | 2.0 |
| Pollution degree (PD) .....: | PD 2 |
| IP protection class .....: | IP X0 |
| Altitude of operation (m) .....: | up to 5000m |
| Altitude of test laboratory (m) .....: | N/A |
| Mass of equipment (kg) .....: | 0.7 |
| **Possible test case verdicts:** | |
| - test case does not apply to the test object .....: | N / A |
| - test object does meet the requirement .....: | P(Pass) |
| - test object does not meet the requirement .....: | F(Fail) |
| **Testing:** | |
| Date(s) of receipt of test item .....: | 2012-10-15 |
| Date(s) of Performance of tests .....: | 2012-10-23 to 2012-11-19 |

**General remarks:**

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the testing laboratory.

"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.

Throughout this report a point is used as the decimal separator.

**Manufacturer's Declaration per Sub Clause 6.25 of IECEE 02:** Yes

The application for obtaining a CB Test Certificate includes more than one factory and a declaration form the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided .....

When differences exist, they shall be identified in the General Product Information section.

**Name and address of Factory(ies):** BRIDGEPOWER CORP
964 GOSAEK-DONG
GWONSEON-GU

SUWON-SI GYEONGGI-DO 441-813 KOREA

WENDENG JEIL ELECTRONICS CO LTD
DONG SHOU GUANGZHOU LU
KAIFA-QU
WENDENG-SHI SHANDONG CHINA

**GENERAL PRODUCT INFORMATION:**

**Report Summary**

The original report was modified on 2012-11-27 to include the following changes/additions:
E300305-A33-CB-4, Amendment 1
- Alternate appliance inlet type SS-120A,RF-180 by Rong Feng Industrial Co., Ltd
- Alternate linefilter 3025671B
- Alternate Y-Capacitor(CY1,CY2) type SE or SB , 250V, maximum 1500pF by Success Electronics Co., Ltd
- Alternate Y-Capacitor(CY1,CY2) type KX or KY , 250V, maximum 1500pF by Murata Mfg.Co., Ltd
- Alternate Y-Capacitor(CY3,CY4) type SE or SB , 250V, maximum 1000pF by Success Electronics Co., Ltd
- Alternate Y-Capacitor(CY3,CY4) type KX or KY , 250V, maximum 1000pF by Murata Mfg.Co., Ltd
- Add electrical output rating ; 48Vdc/2.1A (transformer type 3025579005A ) ; JPW1100**48*****, JMW1100**48*****, CENB1100*48*****,MENB1100*48*****
- Add insulator sheet and shield.
- Alternate ClassII type ; JPW1100******Q***, JMW1100******Q**, CENB1100*****Q**,MENB1100*****Q**,JPW1100******N***, JMW1100******N**, CENB1100*****N**,MENB1100*****N**
- Add supplementary information in table 5.2, table 2.10.3 and 2.10.4 , optical isolator table(1,5,1),table C.2
- Revise manufacturer declaration letter

**Product Description**

Switching Power Supply (AC/DC adapter), consists of electronic components mounted on PWB, a switching transformer and electronic components mounted on PWB, housed with a plastic enclosure.

**Model Differences**

Models CENB1100********, MENB1100********, and JMW1100********* and JPW1100********* (Where * may be alphanumeric, "for marketing purpose and no impact safety related critical components and constructions")

Models CENB1100********, MENB1100********, and JMW1100********* are identical to JPW1100*********, except model designations as follows;

Nomenclature

JPW1100 * * ** ** * **
(a) (b) (c) (d) (f) (e)
or JMW1100 * * ** ** * **
(a) (b) (c) (d) (f) (e)
or CENB1100 * ** ** * **
(b) (c) (d) (f) (e)

or MENB1100 * ** ** * **
(b) (c) (d) (f) (e)
(a) means custom options, may be A to Z;
(b) means design revision changes, may be A to Z;
(c) means output voltages, may be 12, 13, 15, 16, 18,19, 24 or 48;
(d) means standards output cord options, may be 00 to 99;
(e) means custom options, may be 00 to 99 or AA to ZZ.
(f) means class type, maybe F(ClassI) or Q (ClassII) or N(ClassII)

The marked models as 12, 13, 15, 16, 18, 19 , 24 and 48 on (c) nomenclature are identical individually, except model designations, output ratings, transformers and secondary circuits.

The Models JPW1100**13*****, JPW1100**16*****, CENB1100*13*****,CENB1100*16*****, JMW1100**13*****, JMW1100**16*****, MENB1100*13*****, and MENB1100*16***** are identical to Model JPW1100**12***** except for model designation, output ratings, transformers and secondary circuits.

The model JPW1100**19*****, CENB1100*19*****, JMW1100**19*****, MENB1100*19***** are identical to JPW1100**12***** except for model designation, output ratings, transformers and secondary circuits.

**Additional Information**

Maximum Normal Load Condition: Rated Output Currents
JPW1100KA1200F01: 12.0 Vdc, 7.5 A;
JPW1100KA1500F01: 15.0 Vdc, 6.4 A;
JPW1100KA1800F01: 18.0 Vdc, 5.6 A;
JPW1100KA2400F01: 24.0 Vdc, 4.2 A.

This equipment is not provided with user's manual.

Procedure Deviation:
Argentina*, Australia / New Zealand, Austria**, Belgium**, China, Czech Republic**, Denmark, Finland, France**, Germany, Greece**, Group, Hungary*, India*, Ireland*, Israel*, Italy*, Japan*, Kenya*, Korea, Malaysia*, Netherlands**, Norway, Poland*, Portugal*, Singapore*, Slovakia**, Slovenia*, Spain*, Sweden, Switzerland**, and United Kingdom.
* - No National Differences Declared, ** - Only Group Differences.

Before placing the products in the different countries, the manufacturer has to guarantee that:
1. Operating instructions and warnings are written in an accepted language of the certain country.
2. The equipment is in compliance with the national standards of the certain country.

E300305-A33-CB-3, Reissue
- Added Thermal Fuse (Seki Controls Co., Ltd., Type ST-22) in critical component list.

E300305-A33-CB-4, Reissue
- Upgrade report from IEC 60950-1 2nd edition to IEC 60950-1 2nd edition, Amendment1
- Altitude of operation is up to 2000m to up to 5000m refer to IEC 60664-1 table A.2
- Humidity test was conducted at 40 degreeC, 95% , 120hours for China Deviation.
- National Difference for China is revised.
- Tma is changed from 30 degreeC to 35 degreeC

E300305-A33-CB-4, Correction1
- Add optical isolator certification information under mark of conformity section due to missing
- Add bobbin's manufacturer name due to missing

- Correct optical isolator CR,CL from "thermal cycling conducted " to measured CR, CP in table 2.10.2 , 2.10.3 and 2.10.4 due to typo error
- Delete Enclosure type HN-1064W(+) in critical component list due to typo error
- Correct electric strength table due to typo error

E300305-A33-CB-4, Amendment 1(12CA56785)
- Alternate appliance inlet type SS-120A,RF-180 by Rong Feng Industrial Co., Ltd
- Alternate linefilter 3025671B
- Alternate Y-Capacitor(CY1,CY2) type SE or SB , 250V, maximum 1500pF by Success Electronics Co., Ltd
- Alternate Y-Capacitor(CY1,CY2) type KX or KY , 250V, maximum 1500pF by Murata Mfg.Co., Ltd
- Alternate Y-Capacitor(CY3,CY4) type SE or SB , 250V, maximum 1000pF by Success Electronics Co., Ltd
- Alternate Y-Capacitor(CY3,CY4) type KX or KY , 250V, maximum 1000pF by Murata Mfg.Co., Ltd
- Add electrical output rating ; 48Vdc/2.1A (transformer type 3025579005A ) ; JPW1100**48*****, JMW1100**48*****, CENB1100*48*****,MENB1100*48*****
- Add insulator sheet and shield.
- Alternate ClassII type ; JPW1100******Q***, JMW1100******Q**, CENB1100*****Q**,MENB1100*****Q**,JPW1100******N***, JMW1100******N**, CENB1100*****N**,MENB1100*****N**
- Add supplementary information in table 5.2, table 2.10.3 and 2.10.4 , optical isolator table(1,5,1),table C.2
- Revise manufacturer declaration letter

**Technical Considerations**

- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 35
- The means of connection to the mains supply is: Pluggable A, Detachable Power Supply Cord,
- The product is intended for use on the following power systems: TN and IT (for Norway only),
- The equipment disconnect device is considered to be: Appliance Inlet
- The product was investigated to the following additional standards: EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 (which includes all European national differences, including those specified in this test report).

Abbreviations used in the report:

| | | | |
|---|---|---|---|
| - normal condition | N.C. | - single fault condition | S.F.C |
| - operational insulation | OP | - basic insulation | BI |
| - basic insulation between parts of opposite polarity: | BOP | - supplementary insulation | SI |
| - double insulation | DI | - reinforced insulation | RI |

Indicate used abbreviations (if any)

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 1.7.1.2 | Model identification or type reference .....: | CENB1100********, MENB1100********, and JMW1100********* and JPW1100********* | Pass |
| 4.2.7 | Stress relief test | No indication of shrinkage or distortion on enclosures due to the stress relief test 100 degree C/7 h. | Pass |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| 1.5.1 | **TABLE: list of critical components** | | | | Pass |
|---|---|---|---|---|---|
| object/part or Description | manufacturer/ trademark | type/model | technical data | standard (Edition or year) | mark(s) of conformity[1]) |
| Enclosure (Electrical/Mechical/Fire) | Sabic Innovative Plastics B V, Sabic Innovative Plastics Japan L L C or Sabic Innovative Plastics US L L C | 940(f1) | V-0 Overall approximately 149.8 by 86.6 by 51.0 mm, minimum 2.0 mm thick. Composed of two pieces, secured together by screws. RTI; 120 degreeC | UL94, UL746C | USR(E45329), - |
| Enclosure(Electrical/Mechanical/Fire) Alternate | Cheil Industries Inc. Chemicals Div. | HN-1064(+) | V-0 Overall approximately 149.8 by 86.6 by 51.0 mm, minimum 2.0 mm thick. Composed of two pieces, secured together by screws. RTI; 130 degreeC | UL94, UL746C | USR(E115797), - |
| Appliance Inlet | Rong Feng Industrial Co., Ltd. | SS-120-PCB | Minimum 10A, 250V. | UL498, IEC60320 | USR, SEMKO |
| Appliance Inlet Alternate | Rich Bay Co., Ltd. | R-30190 | Minimum 10A, 250V. | UL498, IEC60320 | USR, VDE |
| Appliance Inlet Alternate | Rong Feng Industrial Co., Ltd. | SS-120A | Minimum 15A or 10A, 250V. | UL498, IEC60320 | USR, VDE |
| Fuse (F1) (Optional) | Littelfuse Wickmann-Werke GmbH | 392 | 250V, 3.15A | UL248, VDE0820, EN60127 | USR, VDE |
| Fuse (F1) (Optional) Alternate | Save Fusetech Inc. | SS-5 | 250V, 3.15A | UL248, VDE0820, EN60127 | USR, VDE |
| Thermal Fuse (F1) (Optional) Alternate | Seki Controls Co., Ltd. | ST-22 | 250V, 7A | EN60730-1, VDE0631-1 | USR, VDE |
| Fuse (F2) | Littelfuse Wickmann-Werke GmbH | 392 | 250V, 3.15A | UL248, VDE0820, EN60127 | USR, VDE |
| Fuse (F2) Alternate | Save Fusetech Inc. | SS-5 | 250V, 3.15A | UL248, VDE0820, | USR, VDE |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| | | | | EN60127 | |
| Thermister (TH1) | Various | Various | NTC, 5ohm at 25°C. | Tested in equipment. | -, - |
| Discharging Resistors (RP111, RP112) | Various | Various | 510Kohm 1/8W | Tested in equipment. | -, - |
| Varistor (TNR1) Optional | Amotech Co., Ltd. | INR14D471 | (Line to Line) Minimum 470V Overall 14 mm. | UL1449, IEC60384-14 | USR, VDE |
| Varistor (TNR1) Optional) Alternate | Success Electronics Co., Ltd. | SVR14D471K | (Line to Line) Minimum 470V Overall 14 mm. | UL1449, IEC60384-14 | USR, VDE |
| X-Capacitor (CX1) | Carli Electronics Co., Ltd. | MPX | (Line to Line) 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC60384-14. | UL1414, IEC384-14, EN132400 | USR, FIMKO NEMKO SEMKO |
| X-Capacitor (CX1) Alternate | Iskra Mis D D | KNB 1530 or 1562 or 1563 | (Line to Line) 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC60384-14. | UL1414, IEC384-14, EN132400 | USR, FIMKO, VDE |
| X-Capacitor (CX1) Alternate | Pilkor Electronics Co., Ltd. | PCX2 335M or PCX2 337 | (Line to Line) 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC60384-14. | UL1414, IEC384-14, EN132400 | USR, DEMKO FIMKO |
| X-Capacitor (CX1) Alternate | Okaya Electric Industries Co., Ltd. | LE | (Line to Line) 250V, maximum .0.47uF. Marked with X1 or X2. Meets IEC60384-14. | UL1414, IEC384-14, EN132400 | USR, SEMKO |
| X-Capacitor (CX1) Alternate | Sun Il Electronics Industry Co., Ltd. | 436D | (Line to Line) 250V, maximum .0.47uF. Marked with X1 or X2. Meets IEC60384-14. | UL1414, IEC384-14, EN132400 | USR, FIMKO |
| Line Filter (LF1) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | 3025560 | Core: Ferrite. 24 by 24 mm. Coils: Polyurethane Wire, minimum 130°C Bobbin: (QMFZ2), | Tested in equipment. | -, - |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

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| | | | SUMITOMO BAKELITE CO LTD, type;PM-9820, V-0, 150°C. | | |
| Line Filter (LP1, LP2, LP4, LP5) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | 6872250 | Core: Ferrite 13.7 by 8 mm. Coils: Polyurethane Wire, minimum 130°C Insulation Tubing/Sleeving: FEP, PTFE, PVC, TFE, Neoprene, Polyimide or VW-1; 130°C. | Tested in equipment. | -, - |
| PFC Coil for 12V, 18V, 24V output | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | Part No.: 3025578 | Core: Ferrite 26 by 25 mm Coils: Polyurethane Wire, minimum 130°C Bobbin: (QMFZ2), SUMITOMO BAKELITE CO LTD, type;PM-9820, V-0, 150°C. | Tested in equipment. | -, - |
| PFC Coil for 15V output | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | Part No.: 3025578001 | Core: Ferrite 26 by 25 mm Coils: Polyurethane Wire, minimum 130°C Bobbin: (QMFZ2), SUMITOMO BAKELITE CO LTD, type;PM-9820, V-0, 150°C. | Tested in equipment. | -, - |
| Y-Capacitors (CY1, CY2) | Success Electronics Co., Ltd. | SE or SB | (Line to Ground) 250V, maximum 2200pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | USR, FIMKO |
| Y-Capacitors (CY1, CY2) - Alternate | Murata Mfg. Co., Ltd. | KX or KY | (Line to Ground) 250V, maximum 2200pF. Marked | UL1414, IEC60384-14, EN132400 | USR, FIMKO |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

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| | | | with Y1 or Y2. Meets IEC60384-14. | | |
| Y-Capacitors (CY1, CY2) - Alternate | TDK-EPC Corp. | CD or CS | (Line to Ground) 250V, maximum 2200pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | USR, VDE |
| Bridge Diode (BD1) | Various | Various | Minimum 600V, maximum 10A. | Tested in equipment. | -, - |
| Bridging Capacitors (CY3, CY4) | Success Electronics Co., Ltd. | SE or SB | (Primary to Secondary) 250V, maximum 1500pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | USR, FIMKO |
| Bridging Capacitors (CY3, CY4) Alternate | Murata Mfg. Co., Ltd. | KX or KY | (Primary to Secondary) 250V, maximum 1500pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | USR, FIMKO |
| Bridging Capacitors (CY3, CY4) Alternate | TDK-EPC Corp. | CD or CS | (Primary to Secondary) 250V, maximum 1500pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | USR, VDE |
| Electrolytic Capacitor (CP1) | Various | Various | Minimum 400V, maximum 150uF, minimum 105°C. | Tested in equipment. | -, - |
| FET (QP1) | Various | Various | 550V, 18A Secured to Heat Sink (HS1) by screw. | Tested in equipment. | -, - |
| FET (QP2) | Various | Various | SMD type. 60V, 115mA | Tested in equipment. | -, - |
| FET (QP3) | Various | Various | 800V, 11A or 13A Secured to Heat Sink (HS1) by screw. | Tested in equipment. | -, - |
| Switching IC (UP1) | Various | Various | Maximum 22V, 0.03A. | Tested in equipment. | -, - |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

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|---|---|---|---|---|---|
| Switching IC (UP2) | Various | Various | Maximum 18V, 5.0mA. | Tested in equipment. | -, - |
| Main Transformer (T1) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | JEC(B) (Part No.: 3025579011 for 12V output; Part No.: 3025579012 for 15V output; Part No.: 3025579013 for 18V output; Part No.: 3025579014 for 24V output) | Class B. Core: Ferrite 40 by 42 mm. Coils: Polyurethane Wire, minimum 130°C TIWW: Furukawa Electric Co., Ltd., TEX-E, 130°C Bobbin: SUMITOMO BAKELITE CO LTD, type;PM-9820 (QMFZ2), V-0, 150°C, Insulation tape, DUCK SUNG HITECH CO LTD, DUCK SUNG HITECH CO LTD, Cat No. 220-8 or DTS-204 | UL1446 | USR, - |
| Optical Isolator (PSU1) | Vishay Semiconductor GmbH | TCET1103(G) | Double Protection. Isolation 5000Vac. DTI;0.4mm, External Creepage, Clearance minimum 6.0 mm. Thermal Cycling Test was conducted by BridgePower. | UL1577, EN60950 | USR, BSI (7402),CQC(090 01038077) |
| Optical Isolator (PSU1) Alternate | Cosmo Electronics Corp. | KP1010 | Double Protection. Isolation 5000Vac. DTI;0.4mm, External Creepage, Clearance minimum 6.5 mm. Thermal | UL1577, EN60950 | USR, SEMKO(101643 3),FIMKO(22498 6) |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

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| | | | Cycling Test was conducted by BridgePower. | | |
| Optical Isolator (PSU1) Alternate | Sharp Corp. | PC123 | Double Protection. Isolation 5000Vac. DTI;0.4mm, External Creepage, Clearance minimum 7.0 mm. Thermal Cycling Test was conducted by BridgePower. | UL1577, EN60950 | USR, SEMKO( 9216212), NEMKO(135957 ) |
| Optical Isolator (PSU1) Alternate | Kodenshi Corp. | PC-17K or PC-17K1C | Double Protection. Isolation 5000Vac. DTI;0.4mm, External Creepage, Clearance minimum 7.0 mm. Thermal Cycling Test was conducted by BridgePower. | UL1577, EN60950 | USR, Semko( 9805214/01-04) |
| Zener Diodes (DP14, ZD3, DP6) | Various | Various | 18V, 0.5W | Tested in equipment. | -, - |
| Insulation Sheet (Around T1 Primary) | Various | Various | One piece. V-0, minimum 125°C. Overall approximately 42 by 42 mm, minimum 0.4 mm thick. | UL94, UL746 | USR, - |
| Heat Sink (HS1) (Primary) | Various | Various | Metal. Overall approximately. 128.7 by 36 mm, 2 mm thick. Wound by Polyester Film Tape, (OANZ2), minimum 130°C, minimum three | Tested in equipment. | -, - |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

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|---|---|---|---|---|---|
| | | | turns in primary side. | | |
| Heat Sink (HS2) (Secondary) | Various | Various | Metal. Overall approximately. 69.3 by 36 mm, 3 mm thick. Wound by Polyester Film Tape, (OANZ2), minimum 130°C, minimum three turns in primary side. | Tested in equipment. | -, - |
| Heat Sink (HS3) (Around BD1)_optional | Various | Various | Metal. Overall approximately 40 by 30 mm, 1.5 mm thick. Wound by Polyester Film Tape, (OANZ2), minimum 130°C, minimum 1 turns in primary side. | | -, - |
| Printed Wiring Board (PWB) | Various | Various | Minimum V-1, 130°C. | UL796 | USR, - |
| Protective Bonding Conductor | Various | Various | Mechanically clamped or secured on PWB from Appliance Inlet. Minimum 18 AWG, Green-and-Yellow Insulation. | UL758 | USR, - |
| Bonding Glue | Various | Various | Minimum V-2, minimum 100°C for additional secureness of Internal Conductor. | UL94, UL746 | USR, - |
| Output Cable | Various | Various | For use of External Interconnection), Style No. 2464 or 1777, VW-1 or FT-1, minimum 300V, 80°C, 18 AWG, maximum 3.05 m long. | UL758 | USR, - |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| Nameplate Label | Various | Various | Suitable for use on surface of Polycarbonate (PC) with maximum 60°C surface temperature. | UL969 | USR, - |
| For Models JPW1100*B12*****,JPW1100*B13*****,JPW1100*B15*****,JPW1100*B16*****, JPW1100*B18*****, JPW1100*B19*****, JPW1100*B24*****,JPW1100*B48*****,CENB1100A12*****,CENB1100A13*****,CENB1100A15*****, CENB1100A16*****, CENB1100A18*****, CENB1100A19*****, CENB1100A24*****,CENB1100A48*****,JMW1100*B12*****,JMW1100*B13*****,JMW1100*B15*****,JMW1100*B16*****, JMW1100*B18*****, JMW1100*B19*****, JMW1100*B24*****,JMW1100*B48*****,MENB1100A12*****,MENB1100A13*****,MENB1100A15*****,MENB1100A16*****, | - | - | - | - | -, - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

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|---|---|---|---|---|---|
| MENB1100A18*****, MENB1100A19**F**, MENB1100A24*****,MENB1100A48**F** | | | | | |
| Enclosure (Electrical/Mechanical/Fire) | Sabic Innovative Plastics B V, Sabic Innovative Plastics Japan L L C or Sabic Innovative Plastics US L L C | 940(f1) | V-0 Overall approximately 149.8 by 86.6 by 51.0 mm, minimum 2.0 mm thick. Composed of two pieces. Secured together by screws. | UL94, UL746C | UL, - |
| Enclosure (Electrical/Mechanical/Fire) Alternate | Cheil Industries Inc. Chemicals Div. | HN-1064(+) | V-0 Overall approximately 149.8 by 86.6 by 51.0 mm, minimum 2.0 mm thick. Composed of two pieces. Secured together by screws. | UL94, UL746C | UL, - |
| Appliance Inlet Class I | Rong Feng Industrial Co., Ltd. | SS-120-PCB | Minimum 10A, 250V. | UL498, IEC60320 | UL, SEMKO |
| Appliance Inlet Class I Alternate | Rich Bay Industrial Co., Ltd. | R-30190 | Minimum 10A, 250V. | UL498, IEC60320 | UL, VDE |
| Appliance Inlet – Class II | Rong Feng Industrial Co., Ltd. | RF-180 | Minimum 2.5A, 250V. | UL498, IEC60320 | UL, VDE |
| Appliance Inlet– Class II Alternate | Rong Feng Industrial Co., Ltd. | SS-120A | Minimum 10A, 250V. | UL498, IEC60320 | UL, VDE |
| Fuse (F1) | Littelfuse Wickmann-Werke GmbH | 392 | 250V, 3.15A | UL248, VDE0820, EN60127 | UL, VDE |
| Fuse (F1) Alternate | Save Fusetech Inc. | SS-5 | 250V, 3.15A | UL248, VDE0820, EN60127 | UL, VDE |
| Thermal Fuse (F1) (Optional) Alternate | Seki Controls Co., Ltd. | ST-22 | 250V, 7A | EN60730-1, VDE0631-1 | USR, VDE |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

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|---|---|---|---|---|---|
| Fuse (F2) - | Littelfuse Wickmann-Werke GmbH | 392 | 250V, 3.15A | UL248, VDE0820, EN60127 | UL, VDE |
| Fuse (F2) - Alternate | Save Fusetech Inc. | SS-5 | 250V, 3.15A | UL248, VDE0820, EN60127 | UL, VDE |
| Thermistor (TH1) | Various | Various | NTC, 5ohm at 25°C. | - | -, - |
| Discharging Resistors (RP30, RP31) | Various | Various | 180Kohm 1/8W. | - | -, - |
| Discharging Resistors (RP111, RP112) | Various | Various | 510Kohm 1/8W | - | -, - |
| Discharging IC (UP3) | Power Integrations Inc. | CAP014DG | 1uF, 780Kohm | - | -, - |
| Varistor (TNR1) Optional | Success Electronics Co., Ltd. | SVR14D471K | (Line to Line) 470V Overall 14 mm. | UL1449 IEC/EN61051 | UL, VDE |
| Varistor (TNR1) Optional Alternate | Amotech Co., Ltd. | INR14D471 | (Line to Line) 470V Overall 14 mm. | UL1449 IEC/EN61051 | UL, VDE |
| X-Capacitor (CX1) | Carli Electronics Co., Ltd. | MPX | (Line to Line) 250V, maximum 1uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX1) Alternate | Iskra Mis D D | KNB 1530 or 1562 or 1563 | (Line to Line) 250V, maximum 1uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX1) Alternate | Pilkor Electronics Co., Ltd. | PCX2 335M or PCX2 337 | (Line to Line) 250V, maximum 1uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX1) Alternate | Okaya Electric Industries Co., Ltd. | LE | (Line to Line) 250V, maximum 1uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX1) Alternate | Sun Il Electronics Industry Co., Ltd. | 436D | (Line to Line) 250V, maximum 1uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor | Carli Electronics | MPX | (Line to Line) | UL1414, | UL, FIMKO |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| (CX2) | Co., Ltd. | | 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC384-14. | IEC60384-14, EN132400 | |
| X-Capacitor (CX2) Alternate | Iskra Mis D D | KNB 1530 or 1562 or 1563 | 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX2) Alternate | Pilkor Electronics Co., Ltd. | PCX2 335M or PCX2 337 | 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX2) Alternate | Okaya Electric Industries Co., Ltd. | LE | 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX2) Alternate | Sun Il Electronics Industry Co., Ltd. | 436D | 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| Line Filter (LF1) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | 3025671A | Core: Ferrite 28 by 28 mm Coils: Polyurethane Wire, minimum 130°C. Bobbin: (QMFZ2), SUMITOMO BAKELITE CO LTD, type;PM-9820, V-0, 150°C. | - | -, - |
| Line Filter (LF1)_JMW1100*B48**F**,JPW1100*B48**F**,CENB1100A48**F**,MENB1100A48**F** JMW1100*B48**Q**,JPW1100*B48**Q**,CENB1100A48**Q**,MENB1100A48**Q* | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | 3025671B | Core: Ferrite 28 by 28 mm Coils: Polyurethane Wire, minimum 130°C. Bobbin: (QMFZ2), SUMITOMO BAKELITE CO LTD, type;PM-9820, V-0, 150°C. | - | -, - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| * JMW1100*B48**N**,JPW1100*B48**N**,CENB1100A48**N**,MENB1100A48**N**, JMW1100*B24**Q**,JPW1100*B24**Q**,CENB1100A24**Q**,MENB1100A24**Q** * JMW1100*B24**N**,JPW1100*B24**N**,CENB1100A24**N**,MENB1100A24**N** * | | | | | |
| Line Filter (LP4, LP5) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | Part No.: 3025642A | Core: Ferrite 13.7 by 8 mm Coils: Polyurethane Wire, minimum 130°C Insulation Tubing/Sleeving: FEP, PTFE, PVC, TFE, Neoprene, Polyimide or VW-1; 130°C. | - | -, - |
| PFC Coil (LP3) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | Part No.: 3025578A | Core: Ferrite 26 by 25 mm Coils: Polyurethane Wire, minimum 130°C. Bobbin: (QMFZ2), SUMITOMO BAKELITE CO LTD, type;PM-9820, V-0, 150°C. | - | -, - |
| Y-Capacitors (CY1, CY2) | Success Electronics Co., Ltd. | SE or SB | 250V, maximum 1000pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| Y-Capacitors | Murata Mfg. Co., | KX or KY | 250V, maximum | UL1414, | UL, FIMKO |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

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|---|---|---|---|---|---|
| (CY1, CY2) Alternate | Ltd. | | 1000pF. Marked with Y1 or Y2. Meets IEC60384-14. | IEC60384-14, EN132400 | |
| Y-Capacitors (CY1, CY2) Class II only | Success Electronics Co., Ltd. | SE or SB | 250V, maximum 1500pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| Y-Capacitors (CY1, CY2) Class II only _Alternate | Murata Mfg. Co., Ltd. | KX or KY | 250V, maximum 1500pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| Y-Capacitors (CY3, CY4) | Success Electronics Co., Ltd. | SE or SB | 250V, maximum 1500pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| Y-Capacitors (CY3, CY4) Alternate | Murata Mfg. Co., Ltd. | KX or KY | 250V, maximum 1500pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| Y-Capacitors (CY3, CY4) Class II only | Success Electronics Co., Ltd. | SE or SB | 250V, maximum 1000pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| Y-Capacitors (CY3, CY4) Class II only_Alternate | Murata Mfg. Co., Ltd. | KX or KY | 250V, maximum 1000pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| Bridge Diode (BD1) | Various | Various | Minimum 600V, maximum 10A. | - | -, - |
| Electrolytic Capacitor (CP1) | Various | Various | Minimum 400V, maximum 150uF, minimum 105°C. | - | -, - |
| FET (QP1) | Various | Various | Minimum 550V, maximum 20A. Secured to Heat Sink (HS1) by screw. | - | -, - |
| FET (QP3) | Various | Various | 800V, 11A or 13A Secured to Heat Sink (HS1) | - | -, - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

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| | | | by screw. | | |
| Switching IC (UP1) | Various | Various | Maximum 30V, 0.05A. | - | -, - |
| Switching IC (UP2) | Various | Various | Maximum 31V, 4.0mA. | - | -, - |
| Main Transformer (T1) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | JEC(B) (Part No.: 3025579001A for 12V, 13V output; Part No.: 3025579002A for 15V, 16V output; | (OBJY2), Class B Insulation System. Core: Ferrite 40 by 42 mm. PRI-SEC Coils: TIW: Furukawa Electric Co., Ltd., TEX-E, 130°C Bobbin:SUMITOMO BAKELITE CO LTD, type;PM-9820 (QMFZ2), V-0, 150°C,Insulation tape, DUCK SUNG HITECH CO LTD, Cat No. DTS-200* or DTS-204R or DTS-204K^ | UL1446 | UL, - |
| Main Transformer (T1) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | JEC(B) (Part No.: 3025579004A for 24V, output) | (OBJY2) Class B Insulation System. Core: Ferrite 40 by 42 mm PRI-SEC Coils: TIW: Furukawa Electric Co., Ltd., TEX-E or TEX-ELZ, 130°C Bobbin: SUMITOMO BAKELITE CO LTD, type;PM-9820 (QMFZ2), V-0, 150°C,Insulation tape, DUCK SUNG HITECH CO LTD, Cat No. DTS-200* or DTS-204R or | UL1446 | UL, - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

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| | | | DTS-204R % or DTS-280* or DTS-204K^ | | |
| Main Transformer (T1) | Bridgepower Corp or Wendeng Jeil Electronics Co Ltd | JEC(B) (Part No.: 3025579005A for 48V, output) | (OBJY2) Class B Insulation System. Core: Ferrite 40 by 42 mm PRI-SEC Coils: TIW: Furukawa Electric Co., Ltd., TEX-E or TEX-ELZ, 130°C Bobbin: SUMITOMO BAKELITE CO LTD, type;PM-9820 (QMFZ2), V-0, 150°C,Insulation tape, DUCK SUNG HITECH CO LTD, Cat No. DTS-200* or DTS-204R or DTS-204R % or DTS-280* or DTS-204K^ | UL 1446 | -, - |
| Main Transformer (T1) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | JEC(B) (Part No.: 3025579003A for 18V, 19V output) | (OBJY2), Class B Insulation System. Core: Ferrite 40 by 42 mm. PRI-SEC Coils: TIW: Furukawa Electric Co., Ltd., TEX-E, 130°C Bobbin: SUMITOMO BAKELITE CO LTD, type;PM-9820 (QMFZ2), V-0, 150°C,Insulation tape, DUCK SUNG HITECH CO LTD, Cat No. DTS-200* or DTS-204R or | UL1446 | UL, - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

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| | | | DTS-204K^ | | |
| Optical Isolator (PSU1) | Vishay Semiconductor Gmbh | TCET1103(G) | Double Protection. Isolation 5000Vac. DTI;0.4mm, External Creepage, Clearance minimum 6.0 mm. Thermal Cycling Test was conducted by BridgePower. | UL1577, EN60950 | UL, BSI (7402),CQC(090 01038077) |
| Optical Isolator (PSU1) Alternate | Cosmo Electronics Corp. | KP1010 | Double Protection. Isolation 5000Vac. DTI;0.4mm, External Creepage, Clearance minimum 6.5 mm. Thermal Cycling Test was conducted by BridgePower. | UL1577, EN60950 | UL, SEMKO(101643 3),FIMKO(22498 6) |
| Optical Isolator (PSU1) Alternate | Sharp Corp. | PC123 | Double Protection. Isolation 5000Vac. DTI;0.4mm, External Creepage, Clearance minimum 7.0 mm. Thermal Cycling Test was conducted by BridgePower. | UL1577, EN60950 | UL, SEMKO( 9216212), NEMKO(135957 ) |
| Optical Isolator (PSU1) Alternate | Kodenshi Corp. | PC-17K or PC-17K1C | Double Protection. Isolation 5000Vac. DTI;0.4mm, External Creepage, Clearance | UL1577, EN60950 | UL, Semko( 9805214/01-04) |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

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| | | | minimum 7.0 mm. Thermal Cycling Test was conducted by BridgePower. | | |
| Zener Diode (DP3) | Various | Various | 18V, 0.5W | - | -, - |
| Insulator Sheet (Around Transformer (T1) Primary) | Various | Various | One piece. V-0, minimum 125°C. Overall approximately 42 by 42 mm, minimum 0.4 mm thick. | UL94, UL746C | UL, - |
| Insulator Sheet (Around Shield) | Various | Various | One piece. V-0, minimum 125°C. Overall approximately 42 by 42 mm, minimum 0.4 mm thick. | UL94, UL746C | UL, - |
| Insulator Sheet (Around Shield) | Various | Various | One piece. V-0, minimum 125°C. Overall approximately 100 by 246 mm, minimum 0.4 mm thick. | UL94, UL746C | UL, - |
| Shield | Various | Various | Metal, overall sized approx. 76 by 247 mm, 0.4 mm thickness. | - | -, - |
| Heat Sink (HS1) (Primary) | Various | Various | Metal. Overall approximately 128.7 by 36 mm, 2 mm thick. Wound by Polyester Film Tape, (OANZ2), minimum 130°C, minimum three turns in primary side. | - | -, - |
| Heat Sink (HS2) (Secondary) | Various | Various | Metal. Overall approximately 69.3 by 36 mm, 3 mm thick. Wound by | - | -, - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

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| | | | Polyester Film Tape, (OANZ2), minimum 130°C, minimum three turns in primary side. | | |
| Heat Sink (HS3) (Around BD1)_optional | Various | Various | Metal. Overall approximately 40 by 30 mm, 1.5 mm thick. Wound by Polyester Film Tape, (OANZ2), minimum 130°C, minimum 1 turns in primary side. | - | -, - |
| Silicon Pad (Above T1) | Bergquist | 900-S# | Overall Sized Min. ø 43 by 23 mm , Min.5.0 mm thick, V-0, 150 deg.C. | UL94, UL746C | UL, - |
| Silicon Pad (Above T1) - Alternate | JIANGSU HONGDA NEW MATERIAL CO LTD | HD-87 | Overall Sized Min. ø 43 by 23 mm , Min.5.0 mm thick, V-0, 150 deg.C. | UL94, UL746C | UL, - |
| Silicon Pad (Above PFC1) | Bergquist | 900-S# | Overall Sized Min. ø 25 by 18 mm , Min.5.0 mm thick, * 2EA V-0, 150 | UL94, UL746C | UL, - |
| Silicon Pad (Above PFC1- Alternate | Jiangsu Hongda Chemical New Material | HD-87 | Overall Sized Min. ø 25 by 18 mm , Min.5.0 mm thick, * 2EA V-0, 150 | UL94, UL746C | UL, - |
| Printed Wiring Board (PWB) | Various | Various | Minimum V-1, 130°C. | UL796 | UL, - |
| Protective Bonding Conductor | Various | Various | Mechanically clamped or secured on PWB from Appliance Inlet. Minimum 18 AWG, Green- | UL758 | UL, - |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

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| | | | and-Yellow Insulation. | | |
| Bonding Glue | Various | Various | Minimum V-2, minimum 100°C for additional secureness of Internal Conductor. | UL94, UL746C | UL, - |
| Output Cable | Various | Various | For use of External Interconnection), Style No. 2464 or 1777, VW-1 or FT-1, 18 AWG, maximum 3.05 m long. | UL758 | UL, - |
| Nameplate Label | Various | Various | Suitable for use on surface of Polycarbonate (PC) with max.60°C surface temperature. | UL969 | UL, - |
| Supplementary information:<br>[1]) Provided evidence ensures the agreed level of compliance. See OD-CB2039. | | | | | |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| 1.5.1 | **TABLE: Opto Electronic Devices** | | Pass |
|---|---|---|---|
| Manufacturer.....: | Vishay Semiconductor | Cosmo Electronics Corp. | Sharp Corp. |
| Type.....: | TCET1103(G) | KP1010 | PC123 |
| Separately tested.....: | CQC(09001038077) | SEMKO (1016433), FIMKO(224986) | SEMKO(9216212), NEMKO(135957) |
| Bridging insulation.....: | Reinforced | Reinforced | Reinforced |
| External creepage distance.....: | 6.0mm | 6.5mm | 7.0mm |
| Internal creepage distance.....: | * | * | * |
| Distance through insulation.....: | 0.4mm | 0.4mm | 0.4mm |
| Tested under following conditions.....: | - | - | - |
| Input.....: | - | - | - |
| Output.....: | | - | - |
| Manufacturer | Kodenshi Corp. | - | - |
| Type | PC-17K, PC-17K1C | - | - |
| Separately Tested | SEMKO(9805214/01-04) | - | - |
| Bridging Insulation | Reinforced | - | - |
| External Creepage distance | 7.0mm | - | - |
| Internal Creepage distance | * | - | - |
| Distance through Insulation | 0.4mm | - | - |
| Tested under the following condition | - | - | - |
| Input | - | - | - |
| Output | - | - | - |
| supplementary information: | | | |
| *) Thermal Cycling Test conducted. ; PC123, PC-17K, PC-17K1C, KP1010, TCET1103(G) Thermal Cycling Test Condition One cylcle; 68 hours at 109±2 degreeC, 1 hour at 25 ± 2degreeC 2 hours at 0±2 degreeC 1 hour at 25 ±2 degreeC Ten cylcles repeated After ten cycles humidity was conducted at 40 degreeC, 120Hours, 95%. Electric strength test was conducted after one cycling of test and after humidity test . | | | |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| 1.6.2 | **TABLE: electrical data (in normal conditions)** | | | | | Pass |
|---|---|---|---|---|---|---|
| U (V) | I (A) | I rated (A) | P (W) | Fuse # | I fuse (A) | condition/status |
| - | - | - | - | - | - | Model JPW1100KA1200F01 |
| 90Vac | 1.176 | N/A | 105.4 | F1,F2 | 1.176 | Max. normal load, 50Hz |
| 100Vac | 1.047 | 2.0 | 104.5 | F1,F2 | 1.047 | Max. normal load, 50Hz |
| 240Vac | 0.436 | 2.0 | 101.4 | F1,F2 | 0.436 | Max. normal load, 50Hz |
| 264Vac | 0.440 | N/A | 101.4 | F1,F2 | 0.440 | Max. normal load, 50Hz |
| 90Vac | 1.180 | N/A | 105.8 | F1,F2 | 1.180 | Max. normal load, 60Hz |
| 100Vac | 1.049 | 2.0 | 104.6 | F1,F2 | 1.049 | Max. normal load, 60Hz |
| 240Vac | 0.438 | 2.0 | 101.4 | F1,F2 | 0.438 | Max. normal load, 60Hz |
| 264Vac | 0.445 | N/A | 101.3 | F1,F2 | 0.445 | Max. normal load, 60Hz |
| - | - | - | - | - | - | Model JPW1100KA1500F01 |
| 90Vac | 1.281 | N/A | 114.8 | F1,F2 | 1.281 | Max. normal load, 50Hz |
| 100Vac | 1.140 | 2.0 | 113.7 | F1,F2 | 1.140 | Max. normal load, 50Hz |
| 240Vac | 0.467 | 2.0 | 109.0 | F1,F2 | 0.467 | Max. normal load, 50Hz |
| 264Vac | 0.457 | N/A | 107.2 | F1,F2 | 0.457 | Max. normal load, 50Hz |
| 90Vac | 1.284 | N/A | 115.0 | F1,F2 | 1.284 | Max. normal load, 60Hz |
| 100Vac | 1.141 | 2.0 | 113.8 | F1,F2 | 1.141 | Max. normal load, 60Hz |
| 240Vac | 0.469 | 2.0 | 109.0 | F1,F2 | 0.469 | Max. normal load, 60Hz |
| 264Vac | 0.469 | N/A | 108.9 | F1,F2 | 0.469 | Max. normal load, 60Hz |
| - | - | - | - | - | - | Model JPW1100KA1800F01 |
| 90Vac | 1.319 | N/A | 117.8 | F1,F2 | 1.319 | Max. normal load, 50Hz |
| 100Vac | 1.165 | 2.0 | 116.2 | F1,F2 | 1.165 | Max. normal load, 50Hz |
| 240Vac | 0.481 | 2.0 | 112.2 | F1,F2 | 0.481 | Max. normal load, 50Hz |
| 264Vac | 0.483 | N/A | 112.3 | F1,F2 | 0.483 | Max. normal load, 50Hz |
| 90Vac | 1.322 | N/A | 118.1 | F1,F2 | 1.322 | Max. normal load, 60Hz |
| 100Vac | 1.167 | 2.0 | 116.3 | F1,F2 | 1.167 | Max. normal load, 60Hz |
| 240Vac | 0.481 | 2.0 | 112.4 | F1,F2 | 0.481 | Max. normal load, 60Hz |
| 264Vac | 0.482 | N/A | 112.2 | F1,F2 | 0.482 | Max. normal load, 60Hz |
| - | - | - | - | - | - | Model JPW1100KA2400F01 |
| 90Vac | 1.292 | N/A | 115.9 | F1,F2 | 1.292 | Max. normal load, 50Hz |
| 100Vac | 1.149 | 2.0 | 114.6 | F1,F2 | 1.149 | Max. normal load, 50Hz |
| 240Vac | 0.474 | 2.0 | 111.1 | F1,F2 | 0.474 | Max. normal load, 50Hz |
| 264Vac | 0.477 | N/A | 111.3 | F1,F2 | 0.477 | Max. normal load, 50Hz |
| 90Vac | 1.298 | N/A | 116.0 | F1,F2 | 1.298 | Max. normal load, 60Hz |
| 100Vac | 1.149 | 2.0 | 114.4 | F1,F2 | 1.149 | Max. normal load, 60Hz |
| 240Vac | 0.476 | 2.0 | 110.9 | F1,F2 | 0.476 | Max. normal load, 60Hz |
| 264Vac | 0.484 | N/A | 111.0 | F1,F2 | 0.484 | Max. normal load, 60Hz |
| <11CA15702> See below | N/A | N/A | N/A | N/A | N/A | N/A |
| JPW1100KB1200F01 | N/A | N/A | N/A | N/A | N/A | N/A |
| 90Vac | 1.204 | N/A | 106.40 | F1,F2 | 1.204 | Maximum Normal Load/50Hz |
| 100Vac | 1.066 | 2.0 | 105.14 | F1,F2 | 1.066 | Maximum Normal Load/50Hz |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

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|---|---|---|---|---|---|---|
| 240Vac | 0.457 | 2.0 | 102.90 | F1,F2 | 0.457 | Maximum Normal Load/50Hz |
| 264Vac | 0.429 | N/A | 102.60 | F1,F2 | 0.429 | Maximum Normal Load/50Hz |
| 90Vac | 1.206 | N/A | 106.24 | F1,F2 | 1.206 | Maximum Normal Load/60Hz |
| 100Vac | 1.072 | 2.0 | 105.50 | F1,F2 | 1.072 | Maximum Normal Load/60Hz |
| 240Vac | 0.467 | 2.0 | 102.84 | F1,F2 | 0.467 | Maximum Normal Load/60Hz |
| 264Vac | 0.445 | N/A | 102.60 | F1,F2 | 0.445 | Maximum Normal Load/60Hz |
| JPW1100KB1300F01 | N/A | N/A | N/A | N/A | N/A | N/A |
| 90Vac | 1.222 | N/A | 108.31 | F1,F2 | 1.222 | Maximum Normal Load/50Hz |
| 100Vac | 1.080 | 2.0 | 106.98 | F1,F2 | 1.080 | Maximum Normal Load/50Hz |
| 240Vac | 0.504 | 2.0 | 107.20 | F1,F2 | 0.504 | Maximum Normal Load/50Hz |
| 264Vac | 0.527 | N/A | 106.00 | F1,F2 | 0.527 | Maximum Normal Load/50Hz |
| 90Vac | 1.222 | N/A | 108.08 | F1,F2 | 1.222 | Maximum Normal Load/60Hz |
| 100Vac | 1.086 | 2.0 | 107.15 | F1,F2 | 1.086 | Maximum Normal Load/60Hz |
| 240Vac | 05.20 | 2.0 | 106.50 | F1,F2 | 05.20 | Maximum Normal Load/60Hz |
| 264Vac | 0.544 | N/A | 106.10 | F1,F2 | 0.544 | Maximum Normal Load/60Hz |
| JPW1100KB1500F01 | N/A | N/A | N/A | N/A | N/A | N/A |
| 90Vac | 1.270 | N/A | 112.08 | F1,F2 | 1.270 | Maximum Normal Load/50Hz |
| 100Vac | 1.120 | 2.0 | 110.63 | F1,F2 | 1.120 | Maximum Normal Load/50Hz |
| 240Vac | 0.473 | 2.0 | 107.83 | F1,F2 | 0.473 | Maximum Normal Load/50Hz |
| 264Vac | 0.444 | N/A | 107.63 | F1,F2 | 0.444 | Maximum Normal Load/50Hz |
| 90Vac | 1.270 | N/A | 112.12 | F1,F2 | 1.270 | Maximum Normal Load/60Hz |
| 100Vac | 1.124 | 2.0 | 110.77 | F1,F2 | 1.124 | Maximum Normal Load/60Hz |
| 240Vac | 0.484 | 2.0 | 107.98 | F1,F2 | 0.484 | Maximum Normal Load/60Hz |
| 264Vac | 0.459 | N/A | 107.78 | F1,F2 | 0.459 | Maximum Normal Load/60Hz |
| JPW1100KB1600F01 | N/A | N/A | N/A | N/A | N/A | N/A |
| 90Vac | 1.255 | N/A | 111.04 | F1,F2 | 1.255 | Maximum Normal Load/50Hz |
| 100Vac | 1.112 | 2.0 | 109.69 | F1,F2 | 1.112 | Maximum Normal Load/50Hz |
| 240Vac | 0.476 | 2.0 | 107.82 | F1,F2 | 0.476 | Maximum Normal Load/50Hz |
| 264Vac | 0.444 | N/A | 107.40 | F1,F2 | 0.444 | Maximum Normal Load/50Hz |
| 90Vac | 1.261 | N/A | 111.05 | F1,F2 | 1.261 | Maximum Normal Load/60Hz |
| 100Vac | 1.115 | 2.0 | 109.64 | F1,F2 | 1.115 | Maximum Normal Load/60Hz |
| 240Vac | 0.484 | 2.0 | 107.47 | F1,F2 | 0.484 | Maximum Normal Load/60Hz |
| 264Vac | 0.459 | N/A | 107.26 | F1,F2 | 0.459 | Maximum Normal Load/60Hz |
| <E300305-A33-CB-2, Amendment3>, 11CA37964 | N/A | N/A | N/A | N/A | N/A | N/A |
| Model ; JPW11 | N/A | N/A | N/A | N/A | N/A | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

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| 00KB1800F01 | | | | | | |
| 90Vac | 1.385 | N/A | 121.90 | F1,F2 | 1.385 | Maximum Normal Load/50Hz |
| 100Vac | 1.221 | 2.0 | 120.20 | F1,F2 | 1.221 | Maximum Normal Load/50Hz |
| 240Vac | 0.502 | 2.0 | 117.35 | F1,F2 | 0.502 | Maximum Normal Load/50Hz |
| 264Vac | 0.465 | N/A | 117.15 | F1,F2 | 0.465 | Maximum Normal Load/50Hz |
| 90Vac | 1.385 | N/A | 121.70 | F1,F2 | 1.385 | Maximum Normal Load/60Hz |
| 100Vac | 1.225 | 2.0 | 120.08 | F1,F2 | 1.225 | Maximum Normal Load/60Hz |
| 240Vac | 0.505 | 2.0 | 116.80 | F1,F2 | 0.505 | Maximum Normal Load/60Hz |
| 264Vac | 0.471 | N/A | 116.70 | F1,F2 | 0.471 | Maximum Normal Load/60Hz |
| Model ; JPW1100KB1900F01 | N/A | N/A | N/A | N/A | N/A | N/A |
| 90Vac | 1.320 | N/A | 116.45 | F1,F2 | 1.320 | Maximum Normal Load/50Hz |
| 100Vac | 1.168 | 2.0 | 115.00 | F1,F2 | 1.168 | Maximum Normal Load/50Hz |
| 240Vac | 0.480 | 2.0 | 112.17 | F1,F2 | 0.480 | Maximum Normal Load/50Hz |
| 264Vac | 0.444 | N/A | 111.92 | F1,F2 | 0.444 | Maximum Normal Load/50Hz |
| 90Vac | 1.324 | N/A | 116.30 | F1,F2 | 1.324 | Maximum Normal Load/60Hz |
| 100Vac | 1.172 | 2.0 | 115.00 | F1,F2 | 1.172 | Maximum Normal Load/60Hz |
| 240Vac | 0.485 | 2.0 | 112.27 | F1,F2 | 0.485 | Maximum Normal Load/60Hz |
| 264Vac | 0.453 | N/A | 112.03 | F1,F2 | 0.453 | Maximum Normal Load/60Hz |
| Model ; JPW1100KB2400F01 | N/A | N/A | N/A | N/A | N/A | N/A |
| 90Vac | 1.327 | N/A | 117.40 | F1,F2 | 1.327 | Maximum Normal Load/50Hz |
| 100Vac | 1.176 | 2.0 | 116.00 | F1,F2 | 1.176 | Maximum Normal Load/50Hz |
| 240Vac | 0.491 | 2.0 | 113.20 | F1,F2 | 0.491 | Maximum Normal Load/50Hz |
| 264Vac | 0.458 | N/A | 112.94 | F1,F2 | 0.458 | Maximum Normal Load/50Hz |
| 90Vac | 1.335 | N/A | 117.55 | F1,F2 | 1.335 | Maximum Normal Load/60Hz |
| 100Vac | 1.180 | 2.0 | 116.06 | F1,F2 | 1.180 | Maximum Normal Load/60Hz |
| 240Vac | 0.499 | 2.0 | 113.24 | F1,F2 | 0.499 | Maximum Normal Load/60Hz |
| 264Vac | 0.471 | N/A | 112.95 | F1,F2 | 0.471 | Maximum Normal Load/60Hz |
| <E300305-A33-CB-3> | N/A | N/A | N/A | N/A | N/A | N/A |
| 90Vac | 1.203 | N/A | 106.35 | F1,F2 | 1.203 | Maximum Normal Load/50Hz |
| 100Vac | 1.066 | 2.0 | 105.12 | F1,F2 | 1.066 | Maximum Normal Load/50Hz |
| 240Vac | 0.457 | 2.0 | 102.88 | F1,F2 | 0.457 | Maximum Normal Load/50Hz |
| 264Vac | 0.428 | N/A | 102.58 | F1,F2 | 0.428 | Maximum Normal Load/50Hz |
| 90Vac | 1.204 | N/A | 106.22 | F1,F2 | 1.204 | Maximum Normal Load/60Hz |
| 100Vac | 1.070 | 2.0 | 105.45 | F1,F2 | 1.070 | Maximum Normal Load/60Hz |
| 240Vac | 0.466 | 2.0 | 102.82 | F1,F2 | 0.466 | Maximum Normal Load/60Hz |
| 264Vac | 0.443 | N/A | 102.57 | F1,F2 | 0.443 | Maximum Normal Load/60Hz |
| <E300305-A33-CB-4, | N/A | N/A | N/A | N/A | N/A | N/A |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| Amendemtn1>For model ; JPW1100KB4800Q01 | | | | | | |
| 90Vac | 1.335 | N/A | 117.23 | F1,F2 | 1.335 | Maximum Normal Load / 50Hz |
| 100Vac | 1.175 | 2.0 | 115.62 | F1,F2 | 1.175 | Maximum Normal Load / 50Hz |
| 240Vac | 0.492 | 2.0 | 112.73 | F1,F2 | 0.492 | Maximum Normal Load / 50Hz |
| 264Vac | 0.460 | N/A | 112.42 | F1,F2 | 0.460 | Maximum Normal Load / 50Hz |
| 90Vac | 1.336 | N/A | 117.28 | F1,F2 | 1.336 | Maximum Normal Load / 60Hz |
| 100Vac | 1.181 | 2.0 | 115.76 | F1,F2 | 1.181 | Maximum Normal Load / 60Hz |
| 240Vac | 0.501 | 2.0 | 112.89 | F1,F2 | 0.501 | Maximum Normal Load / 60Hz |
| 264Vac | 0.471 | N/A | 112.54 | F1,F2 | 0.471 | Maximum Normal Load / 60Hz |
| supplementary information: | | | | | | |

| 2.1.1.5 c) 1) | **TABLE: Max. V, A, VA test** | Pass |
|---|---|---|

| Voltage(rated) (V) | Current(rated) (A) | Voltage (max.) (V) | Current (max.) (A) | VA (max.) (VA) |
|---|---|---|---|---|
| <E300305-A33-CB-4, Amendement1>For model ; JPW1100KB4800Q01 | N/A | N/A | N/A | N/A |
| 48Vdc | 2.1A | 47.98V | 3.646A | 177.20 |
| supplementary information: | | | | |
| Previous results ; See clause 2.1.1.5 | | | | |

| 2.2 | **TABLE: Evaluation of voltage limiting components in SELV circuits** | | Pass |
|---|---|---|---|
| Component (measured between) | max. voltage (V) (normal operation) | | Voltage Limiting Components |
| | V Peak | V d.c. | |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | |
|---|---|---|---|
| <E300305-A33-CB-4, Amendment1> | - | - | - |
| T1 pin11,12,13 – T1 pin14,15,16 | 240 | - | |
| QS1 1 to T1 pin 14,15,16 | N/A | 24 | QS1 |
| Fault test performed on voltage limiting components | Voltage measured (V) in SELV circuits (V peak or V d.c.) | | |
| QS1 pin1, 2 | 0 Vdc | | |
| supplementary information: | | | |
| Previous results ; see clause 2.2 | | | |

| 2.10.2 | **TABLE: working voltage measurement** | | Pass |
|---|---|---|---|
| Location | RMS Voltage (V) | Peak voltage (V) | Comments |
| - | - | - | - |
| supplementary information: | | | |

| 2.10.3 and 2.10.4 | **TABLE: clearance and creepage distance measurements** | | | | | Pass |
|---|---|---|---|---|---|---|
| Clearance (cl) and creepage distance (cr) at/of/between: | U peak (V) | U r.m.s. (V) | Required cl (mm) | cl (mm) | Required cr (mm) | cr (mm) |
| Functional: | | | | | | |
| Clearance (cl) and creepage distance (cr) at/of/between: | U peak (V) | U r.m.s. (V) | Required cl (mm) | cl (mm) | Required cr (mm) | cr (mm) |
| Basic/supplementary: | | | | | | |
| Clearance (cl) and creepage distance (cr) at/of/between: | U peak (V) | U r.m.s. (V) | Required cl (mm) | cl (mm) | Required cr (mm) | cr (mm) |
| <E300305-A33-CB-4, Amendment1>For model ; JPW1100KB4800Q01 | N/A | N/A | N/A | N/A | N/A | N/A |
| Model ; | N/A | N/A | N/A | N/A | N/A | N/A |
| Line/Neutral | 360 | 240 | 2.96 | 8.4 | 2.96 | 8.4 |
| CY3 | 370 | 171 | 3.25 | 5.0 | 3.25 | 5.0 |
| CY4 | 12.5 | 10.7 | 2.96 | 5.0 | 2.96 | 5.0 |
| Reinforced: | | | | | | |
| Clearance (cl) and creepage distance (cr) at/of/between: | U peak (V) | U r.m.s. (V) | Required cl (mm) | cl (mm) | Required cr (mm) | cr (mm) |
| PSU1, primary to secondary | 360 | 176 | 5.92 | 6.0 | 5.92 | 6.0 |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| PSU1, primary to secondary | 370 | 186 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin1 / PSU pin3 | 370 | 178 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin1 / PSU pin4 | 370 | 178 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin3 | 370 | 178 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin4 | 370 | 178 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin1 / PSU pin3 | 375 | 183 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin1 / PSU pin4 | 375 | 183 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin3 | 375 | 183 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin4 | 375 | 183 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin1 / PSU pin3 | 375 | 183 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin1 / PSU pin4 | 375 | 183 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin3 | 375 | 183 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin4 | 375 | 183 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin1 / PSU pin3 | 375 | 183 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin1 / PSU pin4 | 375 | 183 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin3 | 375 | 183 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin4 | 375 | 183 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin1 / PSU pin3 | 365 | 178 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin1 / PSU pin4 | 365 | 177 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin3 | 365 | 179 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin4 | 365 | 177 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin1 / PSU pin3 | 365 | 178 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin1 / PSU pin4 | 365 | 177 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin3 | 365 | 177 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin4 | 365 | 178 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin1 / PSU pin3 | 365 | 178 | 5.92 | 6..0 | 5.92 | 6.0 |
| PSU pin1 / PSU pin4 | 365 | 178 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin3 | 365 | 178 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU pin2 / PSU pin4 | 365 | 179 | 5.92 | 6.0 | 5.92 | 6.0 |
| <E300305-A33-CB-4, Amendment1>For model ; JPW1100KB4800Q01 | N/A | N/A | N/A | N/A | N/A | N/A |
| T1 pin1 to T1 pin 11,12,13 | 390 | 183 | 7.7 | 8.0 | 7.7 | 8.0 |
| T1 pin1 to T1 pin 14,15,16 | 590 | 208 | 7.7 | 8.0 | 7.7 | 8.0 |
| T1 pin2 to T1 pin 11,12,13 | 470 | 188 | 7.7 | 8.0 | 7.7 | 8.0 |
| T1 pin2 to T1 pin 14,15,16 | 690 | 235 | 7.7 | 8.0 | 7.7 | 8.0 |
| T1 pin6 to T1 pin 11,12,13 | 410 | 300 | 7.7 | 8.0 | 7.7 | 8.0 |
| T1 pin6 to T1 pin 14,15,16 | 460 | 315 | 7.7 | 8.0 | 7.7 | 8.0 |
| T1 pin8 to T1 pin 11,12,13 | 510 | 351 | 7.7 | 8.0 | 7.7 | 8.0 |
| T1 pin8 to T1 pin 14,15,16 | 600 | 390 | 7.7 | 8.0 | 7.7 | 8.0 |
| PSU1 pin1 to PSU1 pin3 | 375 | 174 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU1 pin1 to PSU1 pin4 | 365 | 171 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU1 pin2 to PSU1 pin3 | 370 | 173 | 5.92 | 6.0 | 5.92 | 6.0 |
| PSU1 pin2 to PSU1 pin4 | 365 | 171 | 5.92 | 6.0 | 5.92 | 6.0 |
| supplementary information: | | | | | | |
| Refer to IEC 60664-1 table A.2 Clearance is multiplied by 1.48, Thermal Cycling Test conducted. ; PC123, PC-17K, PC-17K1C, KP1010, TCET1103(G) Thermal Cycling Test Condition One cylcle; 68 hours at 109±2 | | | | | | |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

degreeC, 1 hour at 25 ± 2degreeC 2 hours at 0±2 degreeC 1 hour at 25 ±2 degreeC Ten cylcles repeated After ten cycles humidity was conducted at 40 degreeC, 120Hours, 95%. Electric strength test was conducted after one cycling of test and after humidity test .

| 2.10.5 | **TABLE: distance through insulation measurements** | | | | Pass |
|---|---|---|---|---|---|
| Distance through insulation (DTI) at/of: | U peak (V) | Urms (V) | Test voltage (V) | Required DTI (mm) | DTI (mm) |
| <E300305-A33-CB-3> | - | - | - | - | - |
| <e300305-A33-CB-3, Amendment1> | - | - | - | - | - |
| *)Optical Isolator(PSU1) | 375 | 174 | 3000Vac | 0.4 | 0.4 |
| **) Transformer Bobbin(T1) | 690 | 390 | 3000 | 0.4 | 0.4 |
| supplementary information: | | | | | |
| *) Certified by NCB(FIMKO or Equivalent) and UL **) Bobbin material: Phenolyc Thermal Cycling Test conducted. ; PC123, PC-17K, PC-17K1C, KP1010, TCET1103(G) Thermal Cycling Test Condition One cylcle; 68 hours at 109±2 degreeC, 1 hour at 25 ± 2degreeC 2 hours at 0±2 degreeC 1 hour at 25 ±2 degreeC Ten cylcles repeated After ten cycles humidity was conducted at 40 degreeC, 120Hours, 95%. Electric strength test was conducted after one cycling of test and after humidity test . | | | | | |

| 4.5 | **TABLE: Thermal requirements** | | | | | | Pass |
|---|---|---|---|---|---|---|---|
| | Supply voltage (V) ..... | See below | See below | N/A | N/A | N/A | — |
| | Ambient Tmin (°C ) ..... | N/A | N/A | N/A | N/A | N/A | — |
| | Ambient Tmax (°C ) ..... | N/A | N/A | N/A | N/A | N/A | — |
| Maximum measured temperature T of part/at: | | T (°C) | | | | | allowed Tmax (°C) |
| Model JPW1100KA1200F01 | | 90Vac, 60Hz, Test duration: 5hr 21min | 264Vac, 60Hz, Test duration: 2hr 23min | N/A | N/A | N/A | N/A |
| 1. F2 | | 65.7 | 46.5 | 74.7 | 55.0 | N/A | 130 |
| 2. PWB under TH1, 130°C | | 87.8 | 57.8 | 96.8 | 66.3 | N/A | 130 |
| 3. CX1, 100°C | | 72 | 52.5 | 81.0 | 61.0 | N/A | 100 |
| 4. LF1 Coil, 130°C | | 88.9 | 57.2 | 97.9 | 65.7 | N/A | 130 |
| 5. CY2, 125°C | | 83.8 | 62.9 | 92.8 | 71.4 | N/A | 125 |
| 6. CP1, 105°C | | 78.6 | 62.3 | 87.6 | 70.8 | N/A | 105 |
| 7. LP1 Coil, 130°C | | 97.8 | 77.3 | 106.8 | 85.8 | N/A | 130 |
| 8. LP2 Coil, 130°C | | 101.4 | 78 | 110.4 | 86.5 | N/A | 130 |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| 9. LP3 Coil, 130°C | 99.3 | 76.4 | 108.3 | 84.9 | N/A | 130 |
| 10. U2, 100°C | 76.4 | 70.3 | 85.4 | 78.8 | N/A | 100 |
| 11. T1 Coil, 110°C | 93.9 | 86.1 | 102.9 | 94.6 | N/A | 110 |
| 12. T1 Core, 110°C | 88.1 | 81.5 | 97.1 | 90.0 | N/A | 110 |
| 13. CY3, 125°C | 67.1 | 61.1 | 76.1 | 69.6 | N/A | 125 |
| 14. HS near QP1 | 71.9 | 64.4 | 80.9 | 72.9 | N/A | 130 |
| 15. HS near QS2 | 84.9 | 75.9 | 93.9 | 84.4 | N/A | 130 |
| 16. LS1 Coil, 130°C | 76.4 | 71.2 | 85.4 | 79.7 | N/A | 130 |
| 17. LS2 Coil, 130°C | 71.9 | 67.7 | 80.9 | 76.2 | N/A | 130 |
| 18. LP4 Coil, 130°C | 81 | 61.5 | 90.0 | 70.0 | N/A | 130 |
| 19. LP5 Coil, 130°C | 77.7 | 58.2 | 86.7 | 66.7 | N/A | 130 |
| 20. Inside Enclosure, 80°C | 56.4 | 52.2 | 65.4 | 60.7 | N/A | 80 |
| 21. Outside Enclosure, 80°C | 55.6 | 51.4 | 64.6 | 59.9 | N/A | 80 |
| 22. Ambient / Tma | 26 | 26.5 | 35.0 | 35.0 | N/A | N/A |
| Model JPW1100KA1800F01 | 90Vac, 60Hz, Test duration: 5hr 21min | 264Vac, 60Hz, Test duration: 2hr 23min | N/A | N/A | N/A | N/A |
| 1. F2 | 70.7 | 48.1 | 79.8 | 57.0 | N/A | 130 |
| 2. PWB under TH1, 130°C | 94 | 59 | 103.1 | 67.9 | N/A | 130 |
| 3. CX1, 100°C | 82.4 | 53.7 | 91.5 | 62.6 | N/A | 100 |
| 4. LF1 Coil, 130°C | 100 | 59.4 | 109.1 | 68.3 | N/A | 130 |
| 5. CY2, 125°C | 87.6 | 62.5 | 96.7 | 71.4 | N/A | 125 |
| 6. CP1, 105°C | 83.4 | 64.3 | 92.5 | 73.2 | N/A | 105 |
| 7. LP1 Coil, 130°C | 100.5 | 71.2 | 109.6 | 80.1 | N/A | 130 |
| 8. LP2 Coil, 130°C | 101.2 | 73 | 110.3 | 81.9 | N/A | 130 |
| 9. LP3 Coil, 130°C | 103.8 | 76.1 | 112.9 | 85.0 | N/A | 130 |
| 10. U2, 100°C | 75.7 | 67.8 | 84.8 | 76.7 | N/A | 100 |
| 11. T1 Coil, 110°C | 91.4 | 82.1 | 100.5 | 91.0 | N/A | 110 |
| 12. T1 Core, 110°C | 84.4 | 76.7 | 93.5 | 85.6 | N/A | 110 |
| 13. CY3, 125°C | 68.7 | 60.1 | 77.8 | 69.0 | N/A | 125 |
| 14. HS near QP1 | 73.9 | 62.4 | 83.0 | 71.3 | N/A | 130 |
| 15. HS near QS2 | 76.5 | 67 | 85.6 | 75.9 | N/A | 130 |
| 16. LS1 Coil, 130°C | 69.1 | 63.2 | 78.2 | 72.1 | N/A | 130 |
| 17. LS2 Coil, 130°C | 67 | 61.6 | 76.1 | 70.5 | N/A | 130 |
| 18. LP4 Coil, 130°C | 72.2 | 53.8 | 81.3 | 62.7 | N/A | 130 |
| 19. LP5 Coil, 130°C | 76.6 | 53.2 | 85.7 | 62.1 | N/A | 130 |
| 20. Inside Enclosure, 80°C | 57.3 | 51.8 | 66.4 | 60.7 | N/A | 80 |
| 21. Outside Enclosure, 80°C | 55.9 | 49.8 | 65.0 | 58.7 | N/A | 80 |
| 22. Ambient / Tma | 25.9 | 26.1 | 35.0 | 35.0 | N/A | N/A |
| <11CA15702>_See below | 90Vac/60Hz | 264Vac/60Hz | 90Vac/60Hz(Tma=35) | 264Vac/60Hz(Tma=35) | N/A | N/A |
| JPW1100KB1200F01 | - | - | - | - | - | - |
| F2 | 78.6 | 58.7 | 88.3 | 69.3 | N/A | 130 |
| PWB under TH1 | 88.8 | 59.6 | 98.5 | 70.2 | N/A | 130 |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| CX1 | 75.4 | 56.9 | 85.1 | 67.5 | N/A | 100 |
| LF1 | 90.3 | 66.3 | 100.0 | 76.9 | N/A | 130 |
| CY2 | 89 | 70.3 | 98.7 | 80.9 | N/A | 125 |
| CP1 | 80.6 | 65.9 | 90.3 | 76.5 | N/A | 105 |
| LP5 | 87.1 | 55.2 | 96.8 | 65.8 | N/A | 130 |
| LP3 | 100.7 | 82.4 | 110.4 | 93.0 | N/A | 130 |
| PSU1 | 80.7 | 73.6 | 90.4 | 84.2 | N/A | 100 |
| T1 Coil | 91.8 | 84.7 | 101.5 | 95.3 | N/A | 110 |
| T1 Core | 98.4 | 91.1 | 108.1 | 101.7 | N/A | 110 |
| CY3 | 74.4 | 67.4 | 84.1 | 78.0 | N/A | 125 |
| Heat Sink near QP1 | 80.7 | 70.6 | 90.4 | 81.2 | N/A | N/A |
| Heat Sink near QS1 | 90.6 | 80.2 | 100.3 | 90.8 | N/A | N/A |
| LS1 | 70.4 | 65.4 | 80.1 | 76.0 | N/A | 130 |
| LS2 | 75.2 | 70.5 | 84.9 | 81.1 | N/A | 130 |
| Inside Enclosure | 73.7 | 67.4 | 83.4 | 78.0 | N/A | 120 |
| Outside Enclosure | 57.9 | 53.3 | 67.6 | 63.9 | N/A | 95 |
| Ambient | 25.3 | 24.4 | 35.0 | 35.0 | N/A | N/A |
| Duration | 5hrs 24min | 4hrs 35min | N/A | N/A | N/A | N/A |
| <E300305-A33-CB-2, Amendment3>, 11CA37964 | N/A | N/A | N/A | N/A | N/A | N/A |
| Model ; JPW1100KB1800F01 | 90Vac/60Hz | 264Vac/60Hz | 90Vac/60Hz | 264Vac/60Hz | N/A | N/A |
| F2 | 85.4 | 61.5 | 90.5 | 66.8 | N/A | 130 |
| PWB under TH1 | 94.7 | 60.2 | 99.8 | 65.5 | N/A | 130 |
| CX1 | 78.7 | 55.1 | 83.8 | 60.4 | N/A | 100 |
| LF1 | 93.4 | 63.3 | 98.5 | 68.6 | N/A | 130 |
| CY2 | 95.3 | 68 | 100.4 | 73.3 | N/A | 125 |
| CP1 | 80.7 | 64.4 | 85.8 | 69.7 | N/A | 105 |
| LP5 | 95.8 | 50.9 | 100.9 | 56.2 | N/A | 130 |
| LP3 | 97.5 | 80.1 | 102.6 | 85.4 | N/A | 130 |
| PSU1 | 80.3 | 76.6 | 85.4 | 81.9 | N/A | 100 |
| T1 Coil | 82.7 | 75.7 | 87.8 | 81 | N/A | 110 |
| T1 Core | 91.3 | 84.3 | 96.4 | 89.6 | N/A | 110 |
| CY3 | 69.9 | 64.4 | 75 | 69.7 | N/A | 125 |
| Heat Sink near QP1 | 94.2 | 80.9 | 99.3 | 86.2 | N/A | N/A |
| Heat Sink near QS1 | 95.8 | 83.4 | 100.9 | 88.7 | N/A | N/A |
| Inside Enclosure | 51.4 | 47.2 | 56.5 | 52.5 | N/A | 120 |
| Outside Enclosure | 70.2 | 63.7 | 75.3 | 69 | N/A | 95 |
| Ambient | 24.9 | 24.7 | Tma=30.0 | Tma=30 | N/A | N/A |
| Duration | 3hrs 2min | 2hr 27min | N/A | N/A | N/A | N/A |
| Model ; JPW1100KB1900F01 | 90Vac/60Hz | 264Vac/60Hz | 90Vac/60Hz | 264Vac/60Hz | N/A | N/A |
| F2 | 85.1 | 61.5 | 87.4 | 63.2 | N/A | 130 |
| PWB under TH1 | 93.2 | 62.5 | 95.5 | 64.2 | N/A | 130 |
| CX1 | 77 | 57.5 | 79.3 | 59.2 | N/A | 100 |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| LF1 | 91.3 | 65.9 | 93.6 | 67.6 | N/A | 130 |
| CY2 | 93.5 | 70.7 | 95.8 | 72.4 | N/A | 125 |
| CP1 | 79.8 | 67.4 | 82.1 | 69.1 | N/A | 105 |
| LP5 | 92.6 | 53.9 | 94.9 | 55.6 | N/A | 130 |
| LP3 | 95.6 | 82.3 | 97.9 | 84 | N/A | 130 |
| PSU1 | 79.5 | 76.6 | 81.8 | 78.3 | N/A | 100 |
| T1 Coil | 82.8 | 78.1 | 85.1 | 79.8 | N/A | 110 |
| T1 Core | 90 | 85.5 | 92.3 | 87.2 | N/A | 110 |
| CY3 | 69.7 | 67.2 | 72 | 68.9 | N/A | 125 |
| Heat Sink near QP1 | 92.2 | 83.9 | 94.5 | 85.6 | N/A | N/A |
| Heat Sink near QS1 | 92.1 | 82.5 | 94.4 | 84.2 | N/A | N/A |
| Inside Enclosure | 62.8 | 62.5 | 65.1 | 64.2 | N/A | 120 |
| Outside Enclosure | 54.6 | 53 | 56.9 | 54.7 | N/A | 95 |
| Ambient | 27.7 | 28.3 | 30 | 30 | N/A | N/A |
| Duration | 2hr 47min | 3hr 5min | N/A | N/A | N/A | N/A |
| E300305-A33-CB-4, Reissue | N/A | N/A | N/A | N/A | N/A | N/A |
| JMW1100KB1300F01 | 90Vac/60Hz | 90Vac/60Hz(Tma=35) | 264Vac/60Hz | 264Vac/60Hz(Tma=35) | N/A | N/A |
| F2 | 87.2 | 95.7 | 54.5 | 62.8 | N/A | 130 |
| TH1 | 87.8 | 96.3 | 58.3 | 66.6 | N/A | 130 |
| CX1 | 75.9 | 84.4 | 56.8 | 65.1 | N/A | 100 |
| LF1 | 94.7 | 103.2 | 68.6 | 76.9 | N/A | 130 |
| CY2 | 89.4 | 97.9 | 71.7 | 80.0 | N/A | 125 |
| CP2 | 81.5 | 90.0 | 67.8 | 76.1 | N/A | 105 |
| LP5 | 85.8 | 94.3 | 53.7 | 62.0 | N/A | 130 |
| LP3 | 100.3 | 108.8 | 85.7 | 94.0 | N/A | 130 |
| PSU1 | 82.7 | 91.2 | 76.2 | 84.5 | N/A | 105 |
| T1 Coil | 98.8 | 107.3 | 88.6 | 96.9 | N/A | 110 |
| T1 Core | 93.5 | 102.0 | 85.1 | 93.4 | N/A | 110 |
| CY3 | 76.8 | 85.3 | 71.4 | 79.7 | N/A | 125 |
| Heatsink near QP1 | 82.2 | 90.7 | 76 | 84.3 | N/A | N/A |
| Heat sink near QS1 | 89.4 | 97.9 | 77.9 | 86.2 | N/A | N/A |
| LS1 | 74.7 | 83.2 | 68.8 | 77.1 | N/A | 130 |
| LS2 | 68.2 | 76.7 | 64.1 | 72.4 | N/A | 130 |
| Inside Enclosure | 75.2 | 83.7 | 68.8 | 77.1 | N/A | 120 |
| Outside Enclosure | 58.1 | 66.6 | 54.5 | 62.8 | N/A | 95 |
| Ambient | 26.5 | N/A | 26.7 | N/A | N/A | N/A |
| Duraton | 4hr 30min | N/A | 6hr 54min | N/A | N/A | N/A |
| JMW1100KB1500F01 | 90Vac/60Hz | 90Vac/60Hz(Tma=35) | 264Vac/60Hz | 264Vac/60Hz(Tma=35) | N/A | N/A |
| F2 | 92.6 | 100.4 | 54.8 | 63.3 | N/A | 130 |
| TH1 | 100.6 | 108.4 | 60.7 | 69.2 | N/A | 130 |
| CX1 | 80.6 | 88.4 | 55 | 63.5 | N/A | 100 |
| LF1 | 94.3 | 102.1 | 62.4 | 70.9 | N/A | 130 |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| CY2 | 90.5 | 98.3 | 67.2 | 75.7 | N/A | 125 |
| CP2 | 81.3 | 89.1 | 64.5 | 73.0 | N/A | 105 |
| LP5 | 96.6 | 104.4 | 51.7 | 60.2 | N/A | 130 |
| LP3 | 103.0 | 110.8 | 82.6 | 91.1 | N/A | 130 |
| PSU1 | 82.4 | 90.2 | 74.2 | 82.7 | N/A | 105 |
| T1 Coil | 92.3 | 100.1 | 81.8 | 90.3 | N/A | 110 |
| T1 Core | 90.9 | 98.7 | 81.9 | 90.4 | N/A | 110 |
| CY3 | 74.8 | 82.6 | 66.8 | 75.3 | N/A | 125 |
| Heatsink near QP1 | 87.8 | 95.6 | 76.2 | 84.7 | N/A | N/A |
| Heat sink near QS1 | 84.1 | 91.9 | 71.5 | 80.0 | N/A | N/A |
| LS1 | 74.7 | 82.5 | 68.1 | 76.6 | N/A | 130 |
| LS2 | 68.0 | 75.8 | 62 | 70.5 | N/A | 130 |
| Inside Enclosure | 68.1 | 75.9 | 61.1 | 69.6 | N/A | 120 |
| Outside Enclosure | 56.0 | 63.8 | 50.8 | 59.3 | N/A | 95 |
| Ambient | 27.2 | N/A | 26.5 | N/A | N/A | N/A |
| Duraton | 5hr 4min | N/A | 4hr 6min | N/A | N/A | N/A |
| JMW1100KB1600F01 | 90Vac/60Hz | 90Vac/60Hz(Tma=35) | 264Vac/60Hz | 264Vac/60Hz(Tma=35) | N/A | N/A |
| F2 | 94.1 | 102.5 | 56 | 64.9 | N/A | 130 |
| TH1 | 100.0 | 108.4 | 60.5 | 69.4 | N/A | 130 |
| CX1 | 80.9 | 89.3 | 55.2 | 64.1 | N/A | 100 |
| LF1 | 93.3 | 101.7 | 61.9 | 70.8 | N/A | 130 |
| CY2 | 90.0 | 98.4 | 66.8 | 75.7 | N/A | 125 |
| CP2 | 81.3 | 89.7 | 64.9 | 73.8 | N/A | 105 |
| LP5 | 97.7 | 106.1 | 52.6 | 61.5 | N/A | 130 |
| LP3 | 103.0 | 111.4 | 82.8 | 91.7 | N/A | 130 |
| PSU1 | 80.6 | 89.0 | 73.4 | 82.3 | N/A | 105 |
| T1 Coil | 89.1 | 97.5 | 79.9 | 88.8 | N/A | 110 |
| T1 Core | 88.2 | 96.6 | 80.3 | 89.2 | N/A | 110 |
| CY3 | 73.6 | 82.0 | 66.8 | 75.7 | N/A | 125 |
| Heatsink near QP1 | 80.7 | 89.1 | 71.8 | 80.7 | N/A | N/A |
| Heat sink near QS1 | 81.3 | 89.7 | 69.5 | 78.4 | N/A | N/A |
| LS1 | 71.6 | 80.0 | 66 | 74.9 | N/A | 130 |
| LS2 | 63.8 | 72.2 | 59.3 | 68.2 | N/A | 130 |
| Inside Enclosure | 65.7 | 74.1 | 60.2 | 69.1 | N/A | 120 |
| Outside Enclosure | 55.8 | 64.2 | 51.8 | 60.7 | N/A | 95 |
| Ambient | 26.6 | N/A | 26.1 | N/A | N/A | N/A |
| Duraton | 4hr 34min | N/A | 5hr 5min | N/A | N/A | N/A |
| JMW1100KB2400F01 | 90Vac/60Hz | 90Vac/60Hz(Tma=35) | 264Vac/60Hz | 264Vac/60Hz(Tma=35) | N/A | N/A |
| F2 | 90.5 | 99.1 | 56.5 | 64.9 | N/A | 130 |
| TH1 | 98.1 | 106.7 | 62 | 70.4 | N/A | 130 |
| CX1 | 83.7 | 92.3 | 59.3 | 67.7 | N/A | 100 |
| LF1 | 95.5 | 104.1 | 63.4 | 71.8 | N/A | 130 |
| CY2 | 90.4 | 99.0 | 68 | 76.4 | N/A | 125 |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CP2 | | 84.1 | 92.7 | 68.1 | 76.5 | N/A | 105 |
| LP5 | | 102.1 | 110.7 | 56.3 | 64.7 | N/A | 130 |
| LP3 | | 102.7 | 111.3 | 85.6 | 94.0 | N/A | 130 |
| PSU1 | | 79.0 | 87.6 | 72.8 | 81.2 | N/A | 105 |
| T1 Coil | | 91.6 | 100.2 | 82.5 | 90.9 | N/A | 110 |
| T1 Core | | 87.3 | 95.9 | 80.5 | 88.9 | N/A | 110 |
| CY3 | | 72.6 | 81.2 | 66.6 | 75.0 | N/A | 125 |
| Heatsink near QP1 | | 85.3 | 93.9 | 77.2 | 85.6 | N/A | N/A |
| Heat sink near QS1 | | 84.3 | 92.9 | 72.4 | 80.8 | N/A | N/A |
| LS1 | | 67.6 | 76.2 | 62.6 | 71.0 | N/A | 130 |
| LS2 | | 66.1 | 74.7 | 61.8 | 70.2 | N/A | 130 |
| Inside Enclosure | | 69.2 | 77.8 | 63.7 | 72.1 | N/A | 120 |
| Outside Enclosure | | 58.0 | 66.6 | 54 | 62.4 | N/A | 95 |
| Ambient | | 26.4 | N/A | 26.6 | N/A | N/A | N/A |
| Duraton | | 4hr 41min | N/A | 12hr 50min | N/A | N/A | N/A |
| <E300305-A33-CB-4, Amendment1>For model ; JPW1100KB4800Q01 | | N/A | N/A | N/A | N/A | N/A | N/A |
| F2 | | 101.0 | 53.8 | 112.0 | 64.8 | N/A | 130 |
| PWB under TH1 | | 105.5 | 62.0 | 116.5 | 73.0 | N/A | 130 |
| CX1 | | 82.6 | 55.3 | 93.6 | 66.3 | N/A | 100 |
| LF1 | | 98.8 | 64.2 | 109.8 | 75.2 | N/A | 130 |
| CY2 | | 90.0 | 68.2 | 101.0 | 79.2 | N/A | 125 |
| CP1 | | 83.7 | 66.3 | 94.7 | 77.3 | N/A | 105 |
| LP5 | | 100.8 | 52.9 | 111.8 | 63.9 | N/A | 130 |
| LP3 | | 97.9 | 80.5 | 108.9 | 91.5 | N/A | 130 |
| PSU1 | | 75.9 | 72.4 | 86.9 | 83.4 | N/A | 130 |
| T1 Coil | | 90.9 | 87.0 | 101.9 | 98.0 | N/A | 110 |
| T1 Core | | 87.0 | 82.8 | 98.0 | 93.8 | N/A | 110 |
| CY3 | | 73.7 | 69.4 | 84.7 | 80.4 | N/A | 125 |
| Heatsink near QP1 | | 82.8 | 75.9 | 93.8 | 86.9 | N/A | N/A |
| Heatsink near QS1 | | 88.2 | 81.3 | 99.2 | 92.3 | N/A | N/A |
| Enclosure Inside | | 78.6 | 74.2 | 89.6 | 85.2 | N/A | 130 |
| Enclosure outside | | 62.2 | 58.9 | 73.2 | 69.9 | N/A | 80 |
| Ambient | | 24.0 | 24.0 | 35.0 | 35.0 | N/A | N/A |
| Duration | | 3hr 20min | 2hr 50min | N/A | N/A | N/A | N/A |
| temperature T of winding: | $t_1$ (°C) | $R_1$ ( Ω) | $t_2$ (°C) | $R_2$ ( Ω ) | T (°C) | allowed $T_{max}$ (°C) | insulation class |
| supplementary information: | | | | | | | |
| - | | | | | | | |

| | | | |
|---|---|---|---|
| 4.5.5 | **TABLE: Ball pressure test of thermoplastic parts** | | N/A |
| | allowed impression diameter (mm) ..... : | less than or equal to 2.0 | — |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| part | test temperature ( °C) | impression diameter (mm) |
|---|---|---|
| supplementary information: | | |
| Bobbin is thermosetting plastic. | | |

| 5.2 | **TABLE: electric strength tests, impulse tests and voltage surge tests** | | Pass |
|---|---|---|---|
| Test voltage applied between: | Voltage shape (AC, DC, impulse, surge) | Test voltage (V) | Breakdown Yes / No |
| Functional: | | | |
| Test voltage applied between: | Voltage shape (AC, DC, impulse, surge) | Test voltage (V) | Breakdown Yes / No |
| Basic/supplementary: | | | |
| Test voltage applied between: | Voltage shape (AC, DC, impulse, surge) | Test voltage (V) | Breakdown Yes / No |
| E300305-A33-CB-4, Amendment 1 | N/A | N/A | N/A |
| Primary winding to Core | AC | 2034 | No |
| Secondary winding to Core | AC | 2034 | No |
| Reinforced: | | | |
| Test voltage applied between: | Voltage shape (AC, DC, impulse, surge) | Test voltage (V) | Breakdown Yes / No |
| Primary to Secondary circuit after Humidity test | AC | 3000Vac | No |
| Primary to wrapped enclosure by metal foil after Humidity test | AC | 3000Vac | No |
| Primary to Secondary circuit | AC | 3000Vac | No |
| Primary to wrapped enclosure by metal foil | AC | 3000Vac | No |
| Transformer Primary winding to Secondary winding | AC | 3000Vac | No |
| Transformer Insulation sheet one layer | AC | 3000Vac | No |
| Insulation sheet around Transformer | AC | 3000Vac | No |
| <11CA15702> | N/A | N/A | N/A |
| Primary to Secondary circuit after Humidity test | AC | 3000Vac | No |
| Primary to wrapped enclosure by metal foil after Humidity test | AC | 3000Vac | No |
| Primary to Secondary circuit | AC | 3000Vac | No |
| Primary to wrapped enclosure by metal foil | AC | 3000Vac | No |
| Transformer Primary winding to Secondary winding | AC | 3000Vac | No |
| Transformer Insulation sheet one layer | AC | 3000Vac | No |
| Insulation sheet around Transformer | AC | 3000Vac | No |
| <E300305-A33-CB-2, Amendment3> | N/A | N/A | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | |
|---|---|---|---|
| Primary to Secondary circuit | AC | 3000Vac | No |
| Primary to wrapped enclosure by metal foil | AC | 3000Vac | No |
| Transformer Primary winding to Secondary winding | AC | 3000Vac | No |
| Transformer Insulation sheet one layer | AC | 3000Vac | No |
| Insulation sheet around Transformer | AC | 3000Vac | No |
| <E300305-A33-CB-4> | N/A | N/A | N/A |
| Primary to Secondary circuit after humidity test | AC | 4800Vac | No |
| Primary to wrapped enclosure by metal foil after humidity test | AC | 4800Vac | No |
| Optical Isolator(After the last period at T1 degreeC) | AC | 4800Vac | No |
| Optical Isolator after humidity test | AC | 4800Vac | No |
| E300305-A33-CB-4, Amendment 1 | N/A | N/A | N/A |
| Primary to wrapped enclosure by metal foil | AC | 3000Vac | No |
| Transformer Primary winding to Secondary winding | AC | 3000Vac | No |
| Transformer Insulation sheet one layer | AC | 3000Vac | No |
| Transformer Insulation sheet one layer | AC | 3000Vac | No |
| Insulation sheet around Transformer | AC | 3000Vac | No |
| supplementary information: | | | |
| Tested Transformer(T1) ; Type; 3025579001A by Wendeng Jeil Type; 3025579002A by Wendeng Jeil Type; 3025579003A by Wendeng Jeil Type; 3025579004A by Wendeng Jeil Type; 3025579005A by Wendeng Jeil Tested Insulation tape ; DUCK SUNG HITECH CO LTD, Cat No. DTS-200* or DTS-204R or DTS-204K^ Tested Optical Isolator(PSU1) ; TCET1103(G) by Vishay Semiconductor KP1010 by Cosmo Electronics Corp. PC123 by Sharp Corp. PC017K or PC-17K1C by Kodenshi Corp Complied with humidity test per clause 2.9.2 | | | |

| 5.3 | **TABLE: fault condition tests** | | | | | | Pass |
|---|---|---|---|---|---|---|---|
| | ambient temperature ( ° C) ..... : | | | | see results | | — |
| | Power source for EUT: Manufacturer, model/type, output rating ..... : | | | | See results | | — |
| Component No. | Fault | Supply voltage (V) | Test time | Fuse # | Fuse current (A) | Observation | |
| <E300305-A33-CB-3, Amendment1> | N/A | N/A | N/A | N/A | N/A | N/A | |
| C8(+) to GND | Overload | 264Vac | 4hr 30min | F1,F2 | 3.15A | The highest load ; 3A, Temperature stabilized ; T1 coil ; 92.4 degreeC, T1 core; 90.9 degreeC, Ambient ; 23.7 degreeC, Immediately IP after short circuit, FI=0.147A, NC,NT,NB | |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

supplementary information:

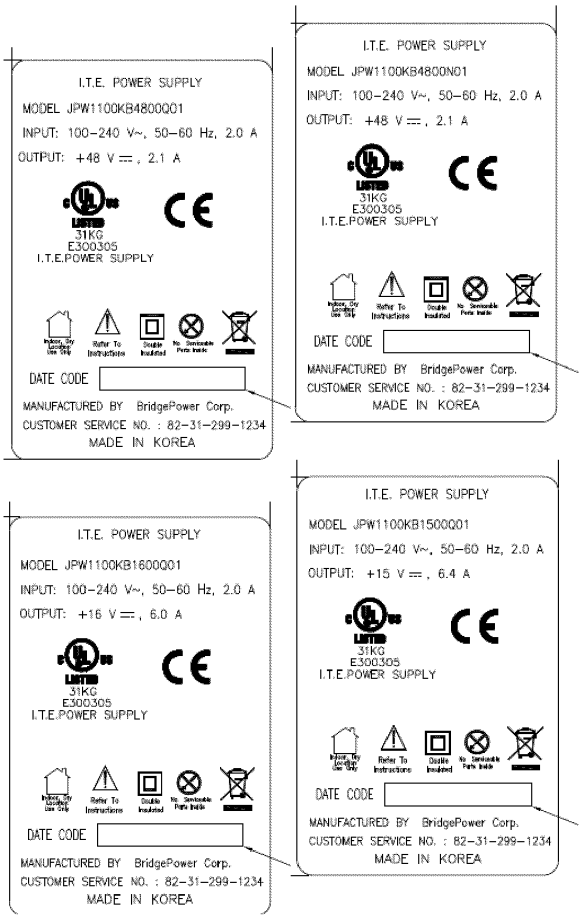
| C.2 | **TABLE: transformers** | | | | | | Pass |
|---|---|---|---|---|---|---|---|
| Loc. | Tested insulation | Working voltage peak /V (2.10.2) | Working voltage rms /V (2.10.2) | Required electric strength (5.2) | Required clearance / mm (2.10.3) | Required creepage distance / mm (2.10.4) | Required distance thr. insul. (2.10.5) |
| T1 | Reinforced (Primary to Secondary) | 690 | 390 | 3000Vac | 7.7 | 7.7 | min. 1 layers or 0.4 mm thickness |
| Loc. | Tested insulation | | | Test voltage / V | Measured clearance / mm | Measured creepage dist./mm | Measured distance thr. insul / mm; number of layers |
| T1 | Reinforced ; Primary winding to Secondary winding | | | 3000Vac | 8.0 | 8.0 | Triple insulated wire applied |
| T1 | Basic or Supplementary ; Primary winding to Core | | | 2034Vac | 4.0 | 4.0 | Triple insulated wire applied |
| T1 | Basic or Supplementary ; Secondary winding to Core | | | 2034Vac | 4.0 | 4.0 | Triple insulated wire applied |
| Transformer type number | | | | Enclosure - Miscellaneous ID | | | |
| Transformer_ 3025579003A | | | | 7-10 | | | |
| Transformer_ 3025579004A | | | | 7-11 | | | |
| Transformer_ 3025579005A | | | | 7-12 | | | |
| supplementary information: | | | | | | | |
| Tested T1 ; 3025579001A,3025579002A,3025579003A,3025579004A,3025579005A | | | | | | | |

# Enclosures

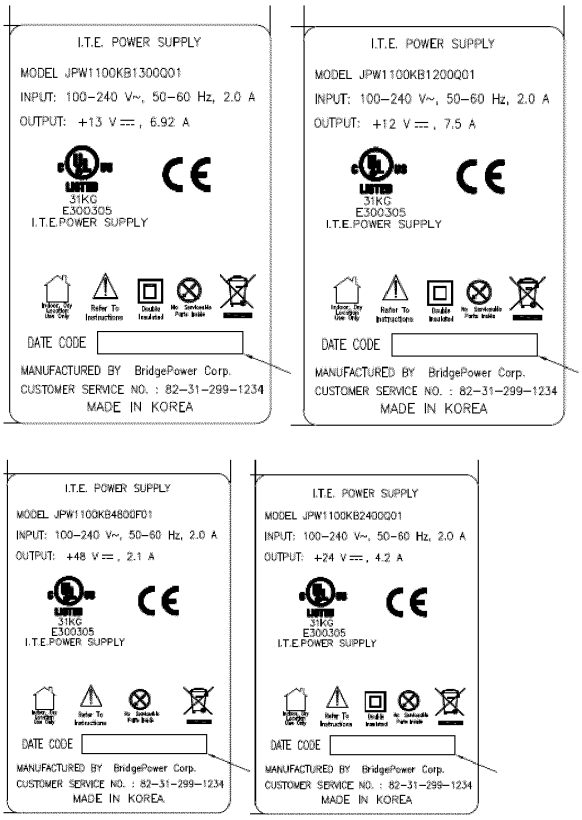
| Type | Supplement Id | Description |
|---|---|---|
| Photographs | 3-01 | Overall Top View |
| Photographs | 3-02 | Overall Bottom View |
| Photographs | 3-03 | Overall Top View without Enclosure |
| Photographs | 3-04 | Overall Side View without Enclosure |
| Photographs | 3-05 | Overall Printed Wiring Board View |
| Photographs | 3-06 | Overall Printed Wiring Board View |
| Photographs | 3-07 | Overall Top View without Enclosure (JPW1100KB1200F01, JPW1100KB1300F01, JPW1100KB1500F01, and JPW1100KB1600F01) |
| Photographs | 3-08 | Overall Bottom View without Enclosure (JPW1100KB1200F01, JPW1100KB1300F01, JPW1100KB1500F01, and JPW1100KB1600F01) |
| Photographs | 3-09 | Overall Top View without Enclosure (JPW1100KB1200F01, JPW1100KB1300F01, JPW1100KB1500F01, and JPW1100KB1600F01) |
| Photographs | 3-10 | Overall View _ Qtype |
| Photographs | 3-11 | Internal view with shield_1 |
| Photographs | 3-12 | Internal view with shield_2 |
| Diagrams | | |
| Schematics + PWB | | |
| Manuals | | |
| Miscellaneous | 7-02 | National Differences - Japan |
| Miscellaneous | 7-03 | National Differences - Appended Page for AS/NZS60950-1: 2003+A1+A2+A3 |
| Miscellaneous | 7-04 | Manufacturer Declaration |
| Miscellaneous | 7-06 | Diagram for Heat Sink |
| Miscellaneous | 7-07 | Transformer_ 3025579001A |
| Miscellaneous | 7-08 | Transformer_ 3025579002A |
| Miscellaneous | 7-09 | National Difference for China |
| Miscellaneous | 7-10 | Transformer_ 3025579003A |
| Miscellaneous | 7-11 | Transformer_ 3025579004A |
| Miscellaneous | 7-12 | Transformer_ 3025579005A |
| Licenses | | |
| Marking Plate | 13-01 | Marking Plate Label |
| Marking Plate | 13-02 | Marking Plate Label |

| | | |
|---|---|---|
| Marking Plate | 13-03 | Marking Plate Label |
| Marking Plate | 13-04 | Marking Plate Label |
| Marking Plate | 13-05 | Marking Plate Label |

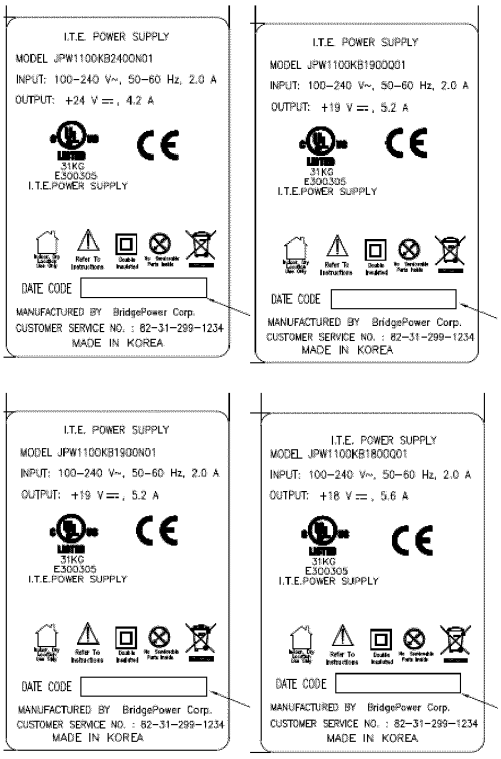
MarkingPlate ID 13-05



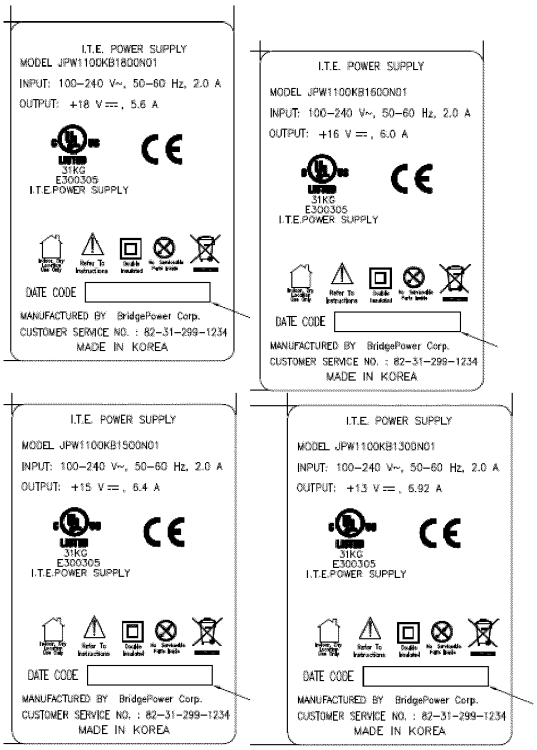
MarkingPlate ID 13-05



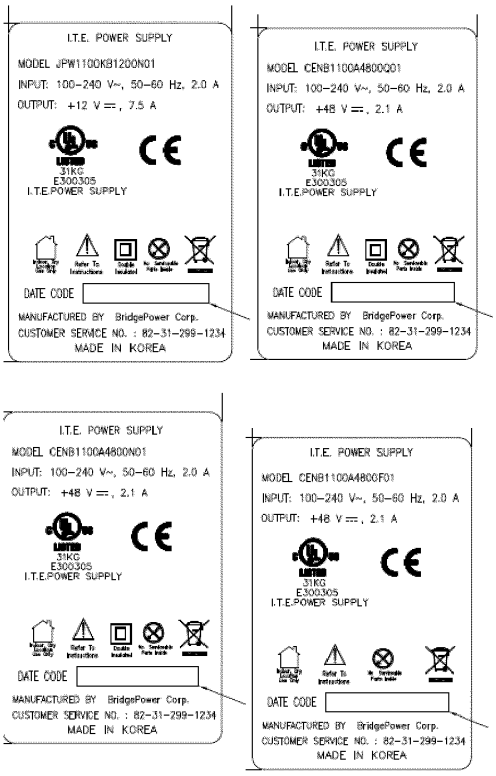
MarkingPlate ID 13-05



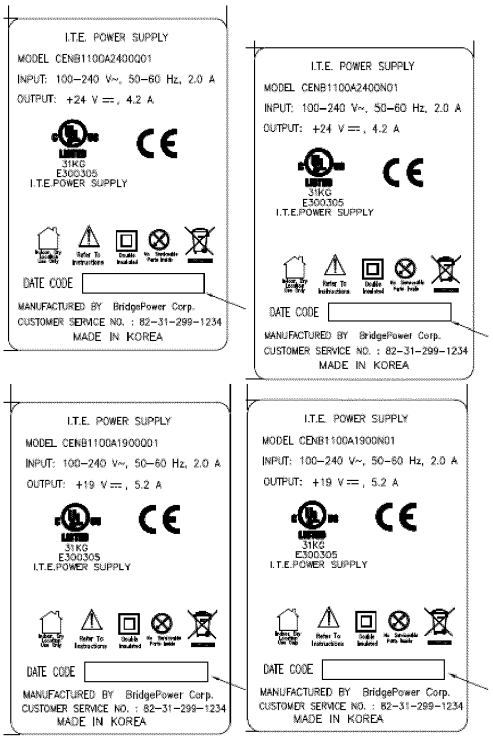
MarkingPlate ID 13-05



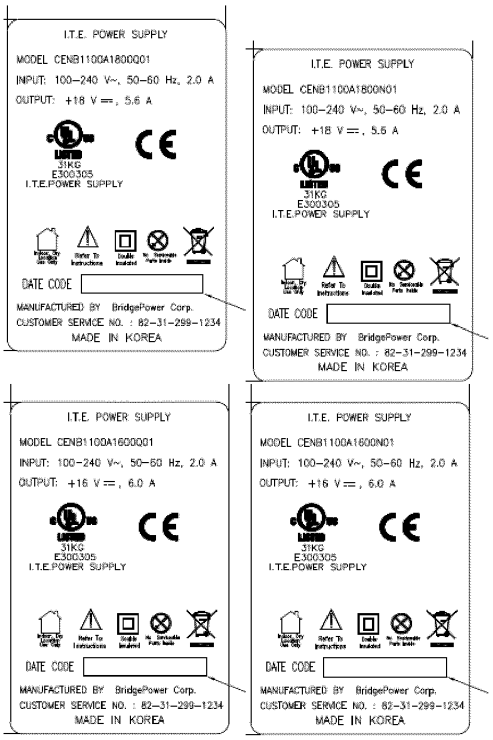
MarkingPlate ID 13-05



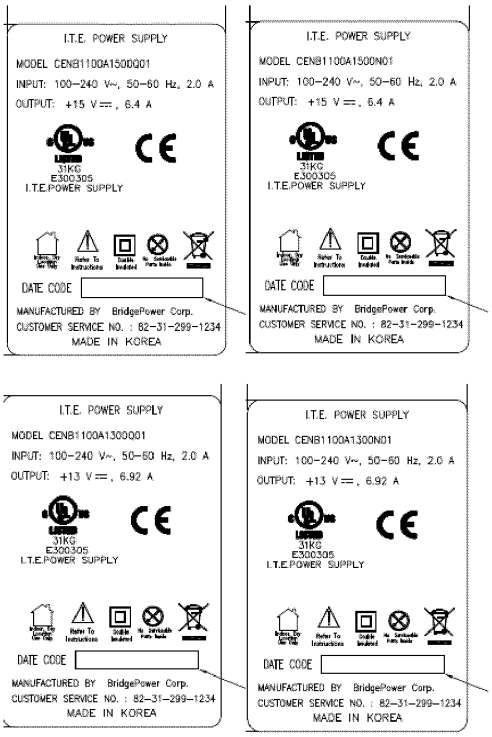
MarkingPlate ID 13-05



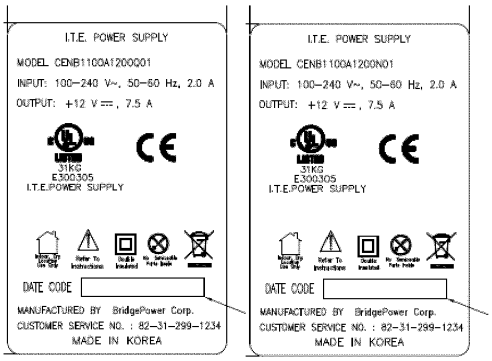
MarkingPlate ID 13-05



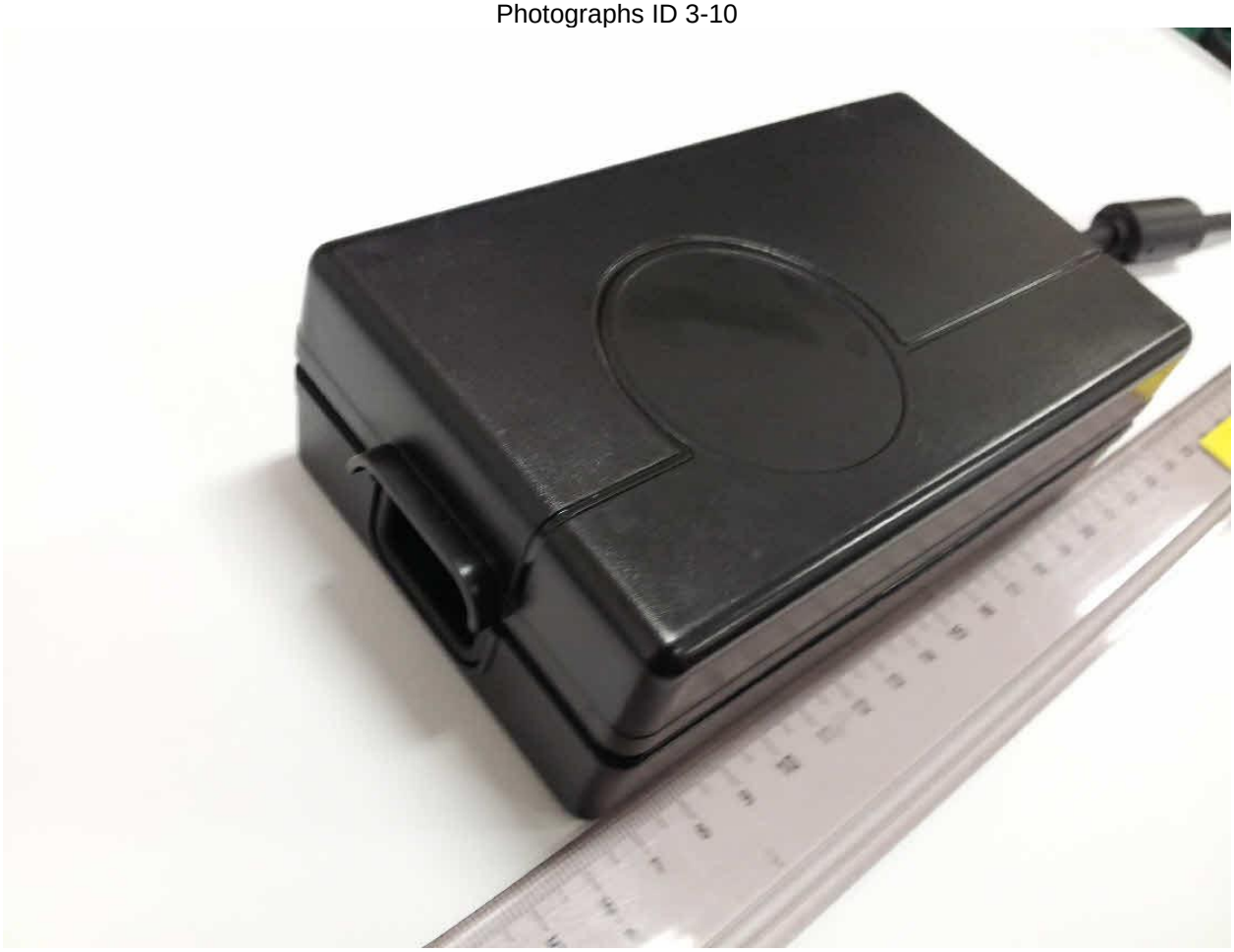
MarkingPlate ID 13-05



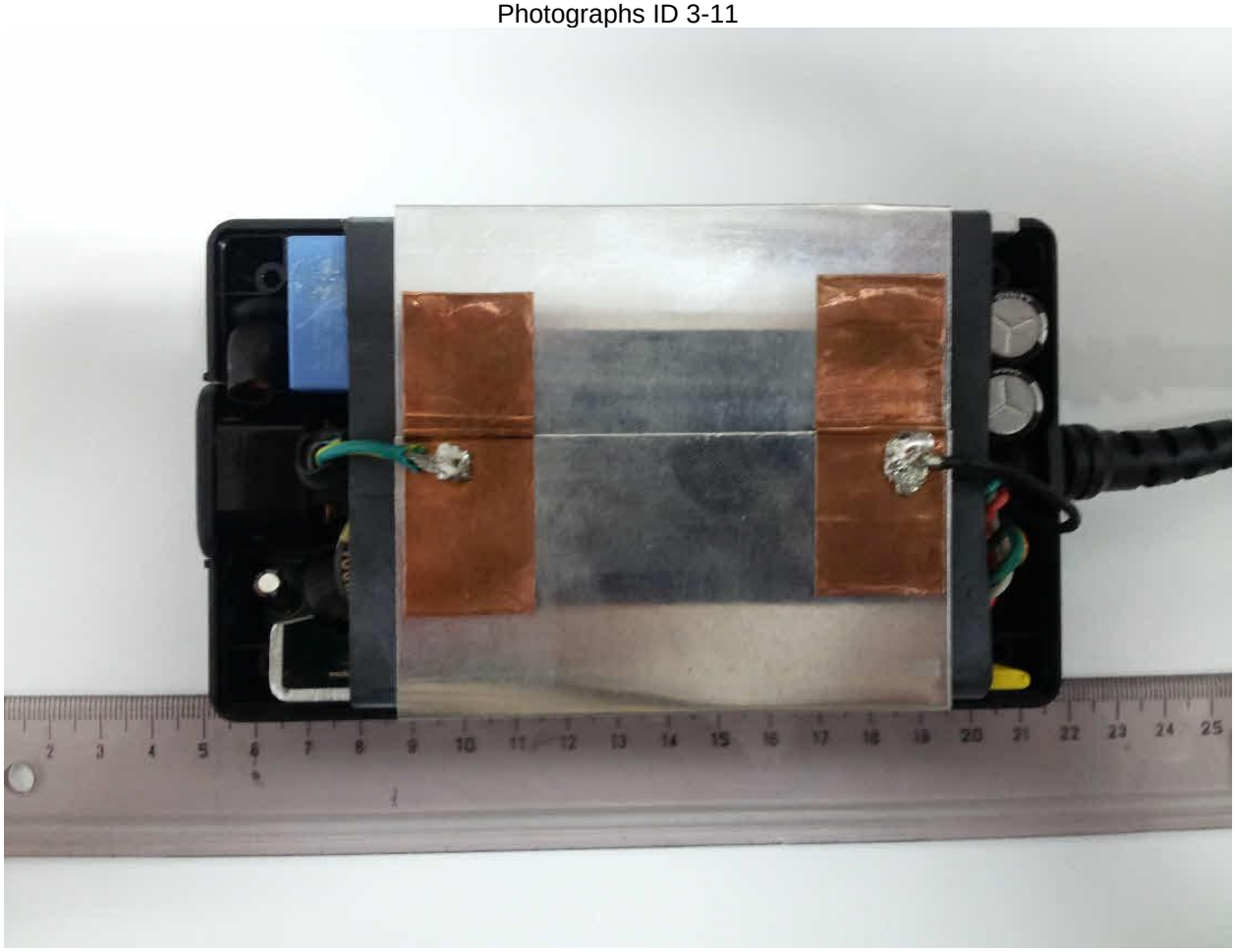
MarkingPlate ID 13-05



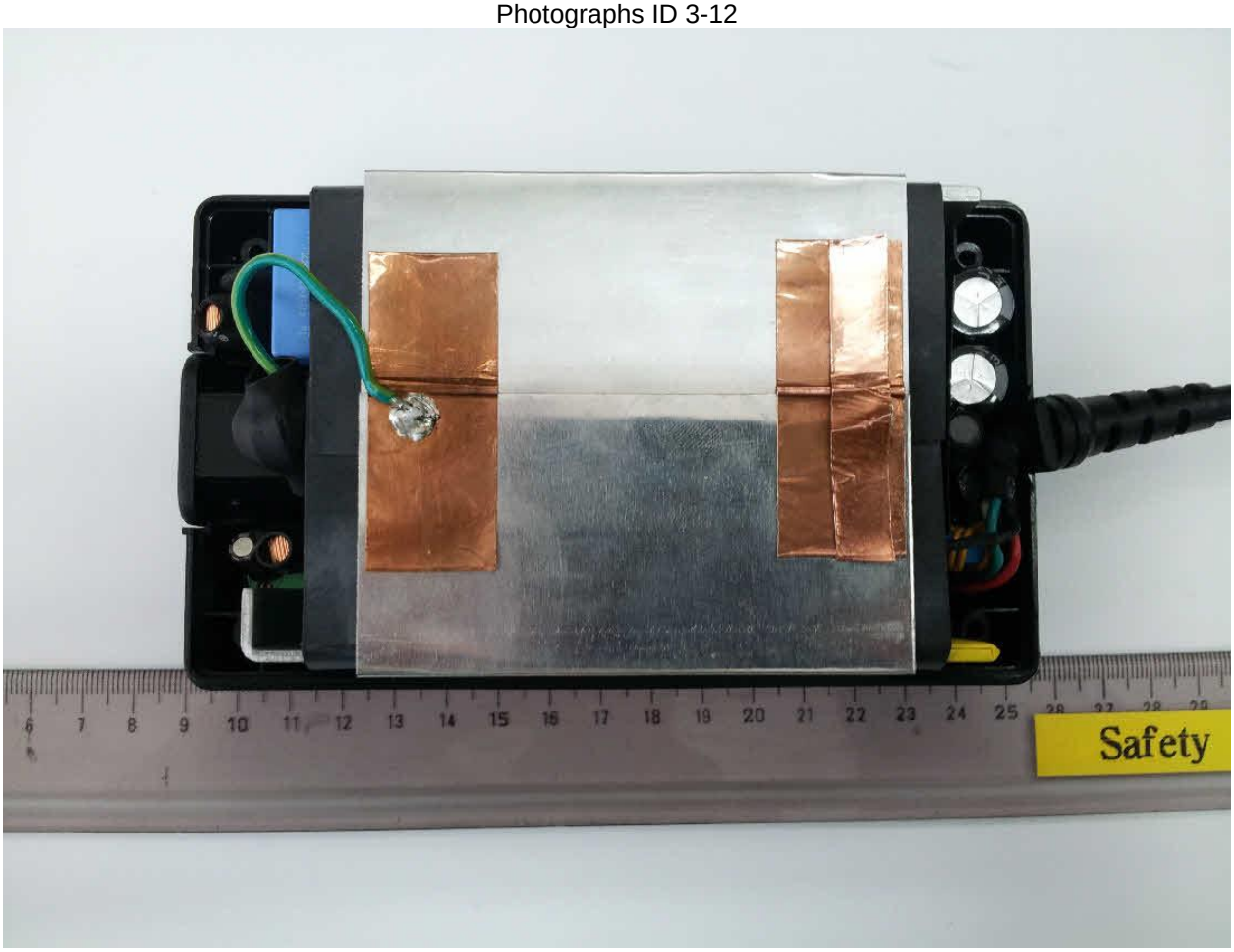
Photographs ID 3-10



Photographs ID 3-11



Photographs ID 3-12



Misc ID 7-04

**DRAFT CB TEST CERTIFICATE INFORMATION**

Generated by ULtraLink on: 2012/11/13

| | |
|---|---|
| Product | Switching Power Supply |
| | |
| Name and address of the Applicant | BRIDGEPOWER CORP<br>964 GOSAEK-DONG<br>GWONSEON-GU<br>SUWON-SI GYEONGGI-DO 441-813 KOREA |
| | |
| Name and address of the Manufacturer | BRIDGEPOWER CORP<br>964 GOSAEK-DONG<br>GWONSEON-GU<br>SUWON-SI GYEONGGI-DO 441-813 KOREA |
| | |
| Name and address of the Factory(ies) | BRIDGEPOWER CORP<br>964 GOSAEK-DONG<br>GWONSEON-GU<br>SUWON-SI GYEONGGI-DO 441-813 KOREA<br><br>WENDENG JEIL ELECTRONICS CO LTD<br>DONG SHOU GUANGZHOU LU<br>KAIFA-QU<br>WENDENG-SHI SHANDONG CHINA |
| | |
| Rating and principal characteristics | Input Rating: 100-240 Vac, 50-60 Hz, 2.0 A<br>Output Rating: 12.0 Vdc, 7.5 A or<br>13.0 Vdc, 6.92A or<br>15.0 Vdc, 6.4 A or<br>16.0Vdc, 6.0 A or<br>18.0 Vdc, 5.6 A or<br>19.0 Vdc, 5.2A or<br>24.0 Vdc, 4.2 A or<br>48.0 Vdc, 2.1A |
| | |
| Trademarks (if any) | None |
| | |
| | |
| Model / Type ref. | Models CENB1100********, MENB1100********, and JMW1100********* and JPW1100********* |
| | |
| Additional information (if necessary) | |
| | |
| A sample of the product was tested and found to be in conformity with | inclusive of CENELEC Common Modifications. See Test Report for National Differences. |
| | |
| As shown in the Test Report Ref. No. which forms part of this Certificate | E300305-A33 |

Misc ID 7-04

| | |
|---|---|
| Client Representative | JONG-NAM JEON |
| | |
| Client email (or fax) | jjweb@bridgepower.co.kr |

**This form is to acknowledge that the above information has been reviewed and the material has been found to be accurate as stated. This is also to record client's confirmation that above factories manufacture product(s) that are equal to those submitted for testing and certification. (Refer to IECEE 02, Sub-clause 6.2.5: "When the application covers more than one factory, the address of each factory shall be stated in the CB Test Certificate and the NCB shall take steps to ensure that the products from all the factories are equal. That shall be confirmed in the Test Report.")**

**Signed:** **Dated:** 2012-11-13

***Definitions** per IECEE 02 (http://www.iecee.com/cbscheme/pdf/IECEE02.pdf):
Applicant: A firm or a person who applies to an NCB for obtaining a CB Test Certificate.
Manufacturer: An organization, situated at a stated location or locations, that carries out or controls such stages in the manufacture, assessment, handling and storage of a product that enables it to accept responsibility for continued compliance of the product with the relevant requirements and undertakes all obligations in that connection.
Factory: The location(s) at which the product is produced or assembled and follow-up service is established by the NCB.

Misc ID 7-10

| DATE | 2011.07.28 |
|---|---|
| FILE No. | JL - |

# 仕 様 承 認 書

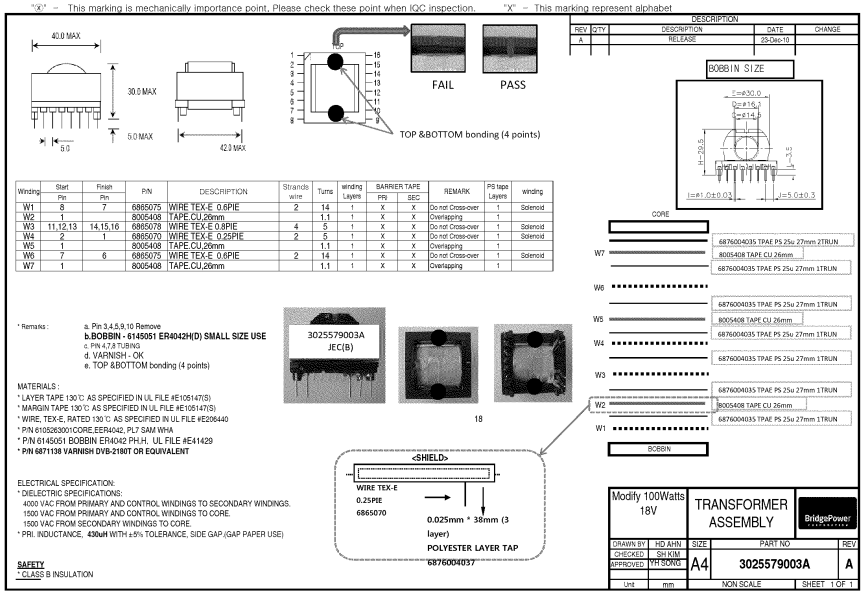
SPECIFICATION FOR APPROVAL

MODEL : JMW1100KB18V
PART NO : 3025579003A

상기 제품에 대해 승인합니다.

| | | | |
|---|---|---|---|
| BRIDGE | 검토자 | 검토자 | 승인자 |
| | | | |
| | | | |
| BRIDGE | 구분 | 작성자 | |
| | 소속/성명 | 이 규 홍 | |
| | 서명 | | |

## Misc ID 7-10


"Ø" – This marking is mechanically importance point, Please check these point when IQC inspection.
"X" – This marking represent alphabet
DESCRIPTION
REV | QTY | DESCRIPTION | DATE | CHANGE
A | | RELEASE | 25-Dec-10
40.0 MAX
30.0 MAX
5.0
5.0 MAX
42.0 MAX
FAIL
PASS
TOP &BOTTOM bonding (4 points)
BOBBIN SIZE
Winding | Start Pin | Finish Pin | P/N | DESCRIPTION | Strands wire | Turns | winding Layers | BARRIER TAPE PRI | BARRIER TAPE SEC | REMARK | PS tape Layers | winding
W1 | 8 | 7 | 6865075 | WIRE TEX-E 0.6PIE | 2 | 14 | 1 | X | X | Do not Cross-over | 1 | Solenoid
W2 | 1 | | 8005408 | TAPE CU,26mm | | 1.1 | 1 | X | X | Overlapping | 1 |
W3 | 11,12,13 | 14,15,16 | 6865078 | WIRE TEX-E 0.8PIE | 4 | 5 | 1 | X | X | Do not Cross-over | 1 | Solenoid
W4 | 2 | 1 | 6865070 | WIRE TEX-E 0.25PIE | 2 | 5 | 1 | X | X | Do not Cross-over | 1 | Solenoid
W5 | 1 | | 8005408 | TAPE CU,26mm | | 1.1 | 1 | X | X | Overlapping | 1 |
W6 | 7 | 6 | 6865075 | WIRE TEX-E 0.6PIE | 2 | 14 | 1 | X | X | Do not Cross-over | 1 | Solenoid
W7 | 1 | | 8005408 | TAPE,CU,26mm | | 1.1 | 1 | X | X | Overlapping | 1 |
* Remarks :
a. Pin 3,4,5,9,10 Remove
b.BOBBIN - 6145051 ER4042H(D) SMALL SIZE USE
c. PIN 4,7,8 TUBING
d. VARNISH - OK
e. TOP &BOTTOM bonding (4 points)
3025579003A
JEC(B)
18
MATERIALS :
* LAYER TAPE 130℃ AS SPECIFIED IN UL FILE #E105147(S)
* MARGIN TAPE 130℃ AS SPECIFIED IN UL FILE #E105147(S)
* WIRE, TEX-E, RATED 130℃ AS SPECIFIED IN UL FILE #E236440
* P/N 6105263001CORE,EER4042, PL7 SAM WHA
* P/N 6145051 BOBBIN ER4042 PH,H. UL FILE #E41429
* P/N 6871138 VARNISH DVB-2180T OR EQUIVALENT
ELECTRICAL SPECIFICATION:
* DIELECTRIC SPECIFICATIONS:
4000 VAC FROM PRIMARY AND CONTROL WINDINGS TO SECONDARY WINDINGS.
1500 VAC FROM PRIMARY AND CONTROL WINDINGS TO CORE.
1500 VAC FROM SECONDARY WINDINGS TO CORE.
* PRI. INDUCTANCE, 430uH WITH ±5% TOLERANCE, SIDE GAP,(GAP PAPER USE)
SAFETY
* CLASS B INSULATION
<SHIELD>
WIRE TEX-E
0.25PIE
6865070
0.025mm * 38mm (3 layer)
POLYESTER LAYER TAP
6876004037
CORE
W7
W6
W5
W4
W3
W2
W1
6876004035 TPAE PS 25u 27mm 2TRUN
8005408 TAPE CU 26mm
6876004035 TPAE PS 25u 27mm 1TRUN
BOBBIN
Modify 100Watts 18V
TRANSFORMER ASSEMBLY
BridgePower
DRAWN BY HD AHN
CHECKED SH KIM
APPROVED YH SONG
SIZE A4
PART NO 3025579003A
REV A
Unit mm
NON SCALE
SHEET 1 OF 1

Misc ID 7-10

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| ITEM | S/W TRANSFORMER | PART NO | 3025579003A | REV | A |

**Insulating Tape - Component**

See General Information for Insulating Tape - Component

DUCK SUNG HITECH CO LTD E105147
DAESUNG BLDG
677 JAYANG-DONG
KWANG JIN-KU
SEOUL, 133-190 REPUBLIC OF KOREA

**Polyester film insulating tape, acrylic adhesive**, Cat. No. DTS-204, rated 130 C.

**Acetate cloth insulating tape, acrylic adhesive**, Cat. No. 231*, rated 105 C.

**Glass cloth insulating tape, rubber adhesive**, Cat. No. 220-B, rated 130 C.

**Glass cloth insulating tape, silicone adhesive**, Cat. No. 221H*, rated 180 C.

**Acetate cloth insulating tape, rubber adhesive**, Cat. No. DTS-230, rated 105 C.

**Nomex (Aramid fiber) film insulating tape with non-woven polyester fiber reinforcement, acrylic adhesive**, Cat. No. DTS-241*, rated 130 C.

**Polyester film insulating tape, acrylic adhesive**, Cat. No. DTS-280*, rated 130 C.

**PET (Polyethylene-Terapthalate) film insulating tape, synthetic rubber adhesive** , Cat. No. DTS -204R %, rated 130 C.

**PET(Polyethylene-Terapthalate) film insulated tape, acrylic adhesive**, Cat. No. DTS-204F*#, rated 130C.

**Flame retardant cotton cloth tape, rubber adhesive**, Cat. No. DTS-250F*+.

**Flame retardant acetate cloth tape, rubber adhesive**, Cat. No. DTS-233F+.

**Flame retardant Aluminum foil tape, acrylic adhesive**, Cat. No. DTS-800A+.

**Flame retardant Aluminum foil with PET (Polyethylene-Terapthalate )film tape, acrylic adhesive**, Cat. No. DTS-810+.

**Flame retardant Copper foil tape, acrylic adhesive**, Cat. No. DTS-820+.

**Flame retardant Nickel coated Polyester Fiber tape, acrylic adhesive**, Cat. No. DTS-830+.

Glass cloth insulating tape, acrylic adhesive, Cat. No. DTS-221F*, rated 155 C.

**PET ( Polyethylene-Terapthalate) film insulating tape with non-woven polyester fiber reinforcement, rubber adhesive** , Cat. No. DTS-280R@, rated 130C.

**PET (Polyethylene-Terapthalate) film insulating tape, acrylic adhesive** , Cat. No. DTS-204BB, rated 130 C.

**PET (Polyethylene-Terapthalate) film insulating tape, acrylic adhesive** , Cat. No. DTS-204K^, rated 130 C.

**PET(Polyethylene-Terapthalate) film insulating tape, acrylic adhesive** , Cat. No. DTS-207S, rated 130C.

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
|---|---|---|---|---|---|
| | | | A | 201.07.28 | |
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Misc ID 7-10

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| **ITEM** | S/W TRANSFORMER | **PART NO** | **3025579003A** | **REV** | **A** |

QMFZ2 Component - Plastics Friday, October 24, 2003 E41429

**SUMITOMO BAKELITE CO LTD**
5-8 HIGASHI-SHINAGAWA 2-CHOME SHINAGAWA-KU TOKYO 140-0002 JP

Material Designation: PM-9820

Product Description: Phenolic (PF), designated "Sumikon" furnished as pellets, granular material.

| Color | Min. Thick. (mm) | Flame Class | HWI | HAI | RTI Elec | RTI Imp | RTI Str | IEC GWIT | IEC GWFI |
|---|---|---|---|---|---|---|---|---|---|
| BK | 0.16 | V-0 | - | - | 150 | 150 | 150 | - | - |
| | 0.51 | V-0 | 3 | 1 | 150 | 150 | 150 | - | - |
| BN | 0.18 | V-0 | - | - | 150 | 150 | 150 | - | - |
| | 0.70 | V-0 | 1 | 2 | 150 | 150 | 150 | - | - |
| | 1.5 | V-0 | 0 | 2 | 150 | 150 | 150 | - | - |
| | 3.0 | V-0 | 0 | 2 | 150 | 150 | 150 | - | - |

**CTI:** 3 **IEC CTI** (V): - **HVTR:** 0 **D495:** 5 **IEC Ball Pressure** (°C): -

**Dielectric Strength** (kV/mm): 14 **Volume Resistivity** ($10^{x}$ohm-cm): 11 **Dimensional Stability**(%): -
**ISO Tensile Strength** (MPa): - **ISO Flexural Strength** (MPa): - **ISO Heat Deflection** (°C): -
**ISO Tensile Impact** (kJ/m$^2$): - **ISO Izod Impact** (kJ/m$^2$): - **ISO Charpy Impact** (kJ/m$^2$): -

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
|---|---|---|---|---|---|
| | | | A | 2011.07.28 | |
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Misc ID 7-10

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| ITEM | S/W TRANSFORMER | PART NO | 3025579003A | REV | A |

**FURUKAWA ELECTRIC CO LTD** E206440
HIRATSUKA MAGNET WIRE WORKS
5-1-9 HIGASHI YAHATA
HIRATSUKA-SHI, KANAGAWA 254-0016 JAPAN

Cat. Nos. FSX-E, SX-E, basic insulation rated 120° C (Class E), 354 V peak for Information Technology Equipment, 40 - 29 AWG (0.08 - 0.30 mm).

Cat. No. FWX-E, supplementary insulation or basic insulation rated 120° C (Class E), 354 V peak for Information Technology Equipment, 40 - 29 AWG (0.08 - 0.30 mm).

Cat. Nos. TEX-E, TEX-EA, reinforced insulation rated 130° C (Class B), 1.41 kV peak for Information Technology Equipment, 32-18 AWG (0.20 - 1.0 mm).

Cat. No. TEX-ELZ, reinforced insulation rated 130° C, (Class B), 1.41 kV peak for Information Technology Equipment, 30 AWG - 21 AWG (7strands each 0.10 mm - 7 strands each 0.30 mm).

Cat. No. TEX-ECEW3, reinforced insulation rated 130° C (Class B), 1.41 kV peak for Information Technology Equipment, 33 - 19 AWG (0.18 - 0.912 mm).

Cat. No. TEX-B, reinforced insulation rated 130° C (Class B), 1.4 kV peak for Information Technology Equipment, 32 - 18 AWG (0.20 - 1.0 mm).

Cat. No. TEX-FS, reinforced insulation rated 155° C (Class F), 250 V rms for medical and dental equipment, and 1.41 kV peak for Information Technology Equipment, 32-18 AWG (0.20 - 1.0 mm).

Cat No. TEX-BS, reinforced insulation rated 130° C (Class B), 1.41 kV peak for Information Technology Equipment, 32-18 AWG (0.20 - 1.0 mm).

Cat. Nos. FSX-B, basic insulation rated 130° C (Class B), 354 V peak for Information Technology Equipment, 0.19 - 0.11 mm).

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
|---|---|---|---|---|---|
| | | | A | 2011.07.28 | |
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Misc ID 7-10

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| ITEM | S/W TRANSFORMER | PART NO | 3025579003A | REV | A |

**LS CABLE LTD**
LS TOWER 1026-6
HOGYE-DONG
DONGAN-GU
ANYANG-CITY, KYUNGKI-DO 431-080 REPUBLIC OF KOREA

E84393

| Cat. No. | Max V | Max Oper Temp | Shrinkdown Class | Col Recognized | VW-1 Rated # |
|---|---|---|---|---|---|
| **Flexible heat shrinkable polyolefin tubing.** | | | | | |
| GSHS-1605G | 600 | 105 | 1 | All except Clear | Yes |
| GSHS-1625G | 600 | 125 | 1 | All except Clear | Yes |
| GSHS-1635F | 600 | 125 | 1 | All except Clear | Yes |
| GSHS-1625LT | 600 | 125 | 1 | All except Clear | Yes |
| GSHS-1605 | 600 | 105 | 1 | All except Clear | Yes |
| GSHS-1625 | 600 | 125 | 1 | All except Clear | Yes |
| GSHS-3635 | 600 | 125 | 1 | All except Clear | Yes |
| GSHS-1625T | 150 | 125 | 1 | All except Clear | Yes |
| GSHS-1625GT | 300 | 125 | 1 | All except Clear | Yes |
| LS-PMWT-FR | 600 | 125 | 1 | All except Clear | Yes |
| LS-PHWT-FR | 600 | 125 | 1 | All except Clear | Yes |
| **Rigid, heat shrinkable PVF2 tubing.** | | | | | |
| GSHS-1675, -3675, -1650F | 600 | 150 | 1 | All, CL | Yes |
| **Not heat shrinkable PVC tubing.** | | | | | |
| VIT-300 | 300 | 105 | ? | All, CL | Yes |
| VIT-600 | 600 | 105 | ? | All, CL | Yes |
| **Not heat shrinkable Polyolefin tubing.** | | | | | |
| FEIT | 600 | 105 | ? | Gray | Yes |

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
|---|---|---|---|---|---|
| | | | A | 2011.07.28 | |
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Misc ID 7-11

| DATE | 2011.07.28 |
|---|---|
| FILE No. | JL - |

# 仕 様 承 認 書

SPECIFICATION FOR APPROVAL

MODEL : JMW1100KB24V
PART NO : 3025579004A

상기 제품에 대해 승인합니다.

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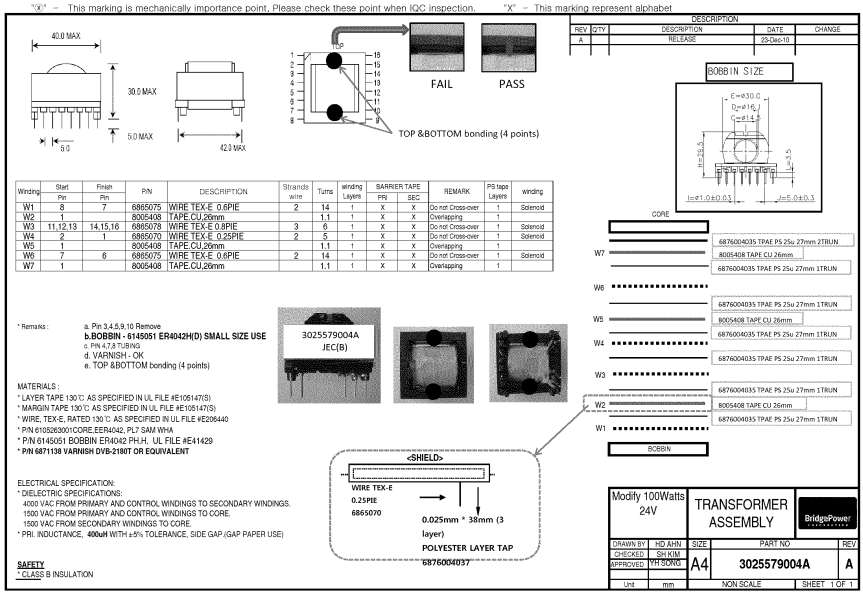
|---|---|---|---|
| BRIDGE | 검토자 | 검토자 | 승인자 |
| | | | |
| | | | |
| BRIDGE | 구분 | 작성자 | |
| | 소속/성명 | 이 규 홍 | |
| | 서명 | | |

## Misc ID 7-11




| Winding | Start Pin | Finish Pin | P/N | DESCRIPTION | Strands wire | Turns | winding Layers | BARRIER TAPE PRI | BARRIER TAPE SEC | REMARK | PS tape Layers | winding |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W1 | 8 | 7 | 6865075 | WIRE TEX-E 0.6PIE | 2 | 14 | 1 | X | X | Do not Cross-over | 1 | Solenoid |
| W2 | 1 | | 8005408 | TAPE CU,26mm | | 1.1 | 1 | X | X | Overlapping | 1 | |
| W3 | 11,12,13 | 14,15,16 | 6865078 | WIRE TEX-E 0.8PIE | 3 | 6 | 1 | X | X | Do not Cross-over | 1 | Solenoid |
| W4 | 2 | 1 | 6865070 | WIRE TEX-E 0.25PIE | 2 | 5 | 1 | X | X | Do not Cross-over | 1 | Solenoid |
| W5 | 1 | | 8005408 | TAPE CU,26mm | | 1.1 | 1 | X | X | Overlapping | 1 | |
| W6 | 7 | 6 | 6865075 | WIRE TEX-E 0.6PIE | 2 | 14 | 1 | X | X | Do not Cross-over | 1 | Solenoid |
| W7 | 1 | | 8005408 | TAPE,CU,26mm | | 1.1 | 1 | X | X | Overlapping | 1 | |

Misc ID 7-11

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| ITEM | S/W TRANSFORMER | PART NO | 3025579004A | REV | A |

**Insulating Tape - Component**

See General Information for Insulating Tape - Component

DUCK SUNG HITECH CO LTD E105147
DAESUNG BLDG
677 JAYANG-DONG
KWANG JIN-KU
SEOUL, 133-190 REPUBLIC OF KOREA

**Polyester film insulating tape, acrylic adhesive**, Cat. No. DTS-204, rated 130 C.

**Acetate cloth insulating tape, acrylic adhesive**, Cat. No. 231*, rated 105 C.

**Glass cloth insulating tape, rubber adhesive**, Cat. No. 220-B, rated 130 C.

**Glass cloth insulating tape, silicone adhesive**, Cat. No. 221H*, rated 180 C.

**Acetate cloth insulating tape, rubber adhesive**, Cat. No. DTS-230, rated 105 C.

**Nomex (Aramid fiber) film insulating tape with non-woven polyester fiber reinforcement, acrylic adhesive**, Cat. No. DTS-241*, rated 130 C.

**Polyester film insulating tape, acrylic adhesive**, Cat. No. DTS-280*, rated 130 C.

**PET (Polyethylene-Terapthalate) film insulating tape, synthetic rubber adhesive** , Cat. No. DTS -204R %, rated 130 C.

**PET(Polyethylene-Terapthalate) film insulated tape, acrylic adhesive**, Cat. No. DTS-204F*#, rated 130C.

**Flame retardant cotton cloth tape, rubber adhesive**, Cat. No. DTS-250F*+.

**Flame retardant acetate cloth tape, rubber adhesive**, Cat. No. DTS-233F+.

**Flame retardant Aluminum foil tape, acrylic adhesive**, Cat. No. DTS-800A+.

**Flame retardant Aluminum foil with PET (Polyethylene-Terapthalate )film tape, acrylic adhesive**, Cat. No. DTS-810+.

**Flame retardant Copper foil tape, acrylic adhesive**, Cat. No. DTS-820+.

**Flame retardant Nickel coated Polyester Fiber tape, acrylic adhesive**, Cat. No. DTS-830+.

Glass cloth insulating tape, acrylic adhesive, Cat. No. DTS-225F*, rated 155 C.

**PET ( Polyethylene-Terapthalate) film insulating tape with non-woven polyester fiber reinforcement, rubber adhesive** , Cat. No. DTS-280R@, rated 130C.

**PET (Polyethylene-Terapthalate) film insulating tape, acrylic adhesive** , Cat. No. DTS-204BB, rated 130 C.

**PET (Polyethylene-Terapthalate) film insulating tape, acrylic adhesive** , Cat. No. DTS-204K^, rated 130 C.

**PET(Polyethylene-Terapthalate) film insulating tape, acrylic adhesive** , Cat. No. DTS-207S, rated 130C.

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
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| | | | A | 201.07.28 | |
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Misc ID 7-11

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| ITEM | S/W TRANSFORMER | PART NO | 3025579004A | REV | A |

QMFZ2 Component - Plastics Friday, October 24, 2003 E41429

**SUMITOMO BAKELITE CO LTD**
5-8 HIGASHI-SHINAGAWA 2-CHOME SHINAGAWA-KU TOKYO 140-0002 JP

Material Designation: PM-9820

Product Description: Phenolic (PF), designated "Sumikon" furnished as pellets, granular material.

| Color | Min. Thick. (mm) | Flame Class | HWI | HAI | RTI Elec | RTI Imp | RTI Str | IEC GWIT | IEC GWFI |
|---|---|---|---|---|---|---|---|---|---|
| BK | 0.16 | V-0 | - | - | 150 | 150 | 150 | - | - |
| | 0.51 | V-0 | 3 | 1 | 150 | 150 | 150 | - | - |
| BN | 0.18 | V-0 | - | - | 150 | 150 | 150 | - | - |
| | 0.70 | V-0 | 1 | 2 | 150 | 150 | 150 | - | - |
| | 1.5 | V-0 | 0 | 2 | 150 | 150 | 150 | - | - |
| | 3.0 | V-0 | 0 | 2 | 150 | 150 | 150 | - | - |

**CTI:** 3 **IEC CTI** (V): - **HVTR:** 0 **D495:** 5 **IEC Ball Pressure** (°C): -

**Dielectric Strength** (kV/mm): 14 **Volume Resistivity** ($10^{x}$ohm-cm): 11 **Dimensional Stability**(%): -
**ISO Tensile Strength** (MPa): - **ISO Flexural Strength** (MPa): - **ISO Heat Deflection** (°C): -
**ISO Tensile Impact** (kJ/m$^2$): - **ISO Izod Impact** (kJ/m$^2$): - **ISO Charpy Impact** (kJ/m$^2$): -

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
|---|---|---|---|---|---|
| | | | A | 2011.07.28 | |
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Misc ID 7-11

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| ITEM | S/W TRANSFORMER | PART NO | 3025579004A | REV | A |

**FURUKAWA ELECTRIC CO LTD** E206440
HIRATSUKA MAGNET WIRE WORKS
5-1-9 HIGASHI YAHATA
HIRATSUKA-SHI, KANAGAWA 254-0016 JAPAN

Cat. Nos. FSX-E, SX-E, basic insulation rated 120° C (Class E), 354 V peak for Information Technology Equipment, 40 - 29 AWG (0.08 - 0.30 mm).

Cat. No. FWX-E, supplementary insulation or basic insulation rated 120° C (Class E), 354 V peak for Information Technology Equipment, 40 - 29 AWG (0.08 - 0.30 mm).

Cat. Nos. TEX-E, TEX-EA, reinforced insulation rated 130° C (Class B), 1.41 kV peak for Information Technology Equipment, 32-18 AWG (0.20 - 1.0 mm).

Cat. No. TEX-ELZ, reinforced insulation rated 130° C, (Class B), 1.41 kV peak for Information Technology Equipment, 30 AWG - 21 AWG (7strands each 0.10 mm - 7 strands each 0.30 mm).

Cat. No. TEX-ECEW3, reinforced insulation rated 130° C (Class B), 1.41 kV peak for Information Technology Equipment, 33 - 19 AWG (0.18 - 0.912 mm).

Cat. No. TEX-B, reinforced insulation rated 130° C (Class B), 1.4 kV peak for Information Technology Equipment, 32 - 18 AWG (0.20 - 1.0 mm).

Cat. No. TEX-FS, reinforced insulation rated 155° C (Class F), 250 V rms for medical and dental equipment, and 1.41 kV peak for Information Technology Equipment, 32-18 AWG (0.20 - 1.0 mm).

Cat No. TEX-BS, reinforced insulation rated 130° C (Class B), 1.41 kV peak for Information Technology Equipment, 32-18 AWG (0.20 - 1.0 mm).

Cat. Nos. FSX-B, basic insulation rated 130° C (Class B), 354 V peak for Information Technology Equipment, 0.19 - 0.11 mm).

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
|---|---|---|---|---|---|
| | | | A | 2011.07.28 | |
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Misc ID 7-11

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| ITEM | S/W TRANSFORMER | PART NO | 3025579004A | REV | A |

**LS CABLE LTD**
LS TOWER 1026-6
HOGYE-DONG
DONGAN-GU
ANYANG-CITY, KYUNGKI-DO 431-080 REPUBLIC OF KOREA

E84393

| Cat. No. | Max V | Max Oper Temp | Shrinkdown Class | Col Recognized | VW-1 Rated # |
|---|---|---|---|---|---|
| **Flexible heat shrinkable polyolefin tubing.** | | | | | |
| GSHS-1605G | 600 | 105 | 1 | All except Clear | Yes |
| GSHS-1625G | 600 | 125 | 1 | All except Clear | Yes |
| GSHS-1635F | 600 | 125 | 1 | All except Clear | Yes |
| GSHS-1625LT | 600 | 125 | 1 | All except Clear | Yes |
| GSHS-1605 | 600 | 105 | 1 | All except Clear | Yes |
| GSHS-1625 | 600 | 125 | 1 | All except Clear | Yes |
| GSHS-3635 | 600 | 125 | 1 | All except Clear | Yes |
| GSHS-1625T | 150 | 125 | 1 | All except Clear | Yes |
| GSHS-1625GT | 300 | 125 | 1 | All except Clear | Yes |
| LS-PMWT-FR | 600 | 125 | 1 | All except Clear | Yes |
| LS-PHWT-FR | 600 | 125 | 1 | All except Clear | Yes |
| **Rigid, heat shrinkable PVF2 tubing.** | | | | | |
| GSHS-1675, -3675, -1650F | 600 | 150 | 1 | All, CL | Yes |
| **Not heat shrinkable PVC tubing.** | | | | | |
| VIT-300 | 300 | 105 | ? | All, CL | Yes |
| VIT-600 | 600 | 105 | ? | All, CL | Yes |
| **Not heat shrinkable Polyolefin tubing.** | | | | | |
| FEIT | 600 | 105 | ? | Gray | Yes |

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
|---|---|---|---|---|---|
| | | | A | 2011.07.28 | |
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Misc ID 7-12

| DATE | 2011.07.28 |
|---|---|
| FILE No. | JL - |

# 仕 様 承 認 書

SPECIFICATION FOR APPROVAL

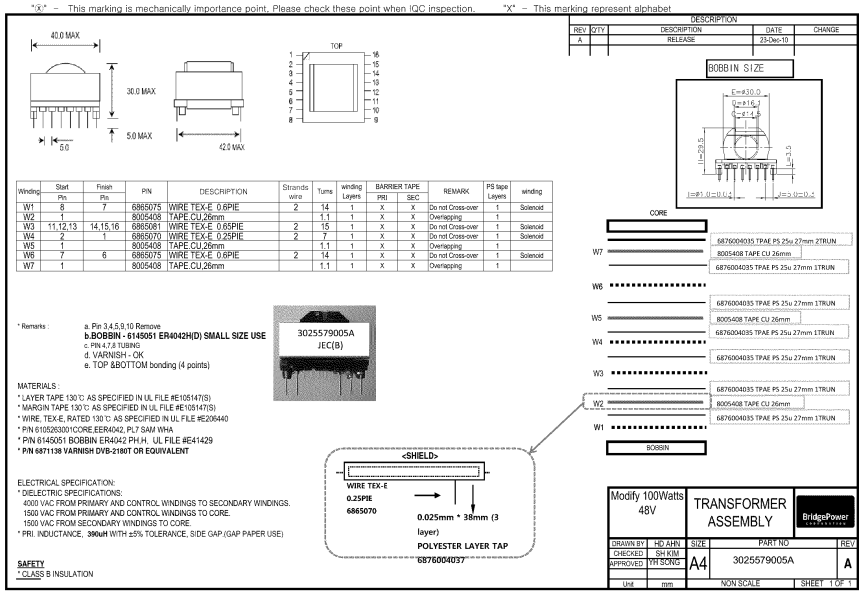
MODEL : JMW1100KB24V
PART NO : 3025579005A

상기 제품에 대해 승인합니다.

| | 검토자 | 검토자 | 승인자 |
|---|---|---|---|
| BRIDGE | | | |
| | | | |

| | 구분 | 작성자 |
|---|---|---|
| BRIDGE | 소속/성명 | 이 규 홍 |
| | 서명 | |

Misc ID 7-12




| Winding | Start Pin | Finish Pin | PIN | DESCRIPTION | Strands wire | Turns | winding Layers | BARRIER TAPE PRI | BARRIER TAPE SEC | REMARK | PS tape Layers | winding |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W1 | 8 | 7 | 6865075 | WIRE TEX-E 0.6PIE | 2 | 14 | 1 | X | X | Do not Cross-over | 1 | Solenoid |
| W2 | 1 | | 8005408 | TAPE CU 26mm | | 1.1 | 1 | X | X | Overlapping | 1 | |
| W3 | 11,12,13 | 14,15,16 | 6865081 | WIRE TEX-E 0.65PIE | 2 | 15 | 1 | X | X | Do not Cross-over | 1 | Solenoid |
| W4 | 2 | 1 | 6865070 | WIRE TEX-E 0.25PIE | 2 | 7 | 1 | X | X | Do not Cross-over | 1 | Solenoid |
| W5 | 1 | | 8005408 | TAPE CU 26mm | | 1.1 | 1 | X | X | Overlapping | 1 | |
| W6 | 7 | 6 | 6865075 | WIRE TEX-E 0.6PIE | 2 | 14 | 1 | X | X | Do not Cross-over | 1 | Solenoid |
| W7 | 1 | | 8005408 | TAPE CU 26mm | | 1.1 | 1 | X | X | Overlapping | 1 | |

* Remarks :
a. Pin 3,4,5,9,10 Remove
**b.BOBBIN - 6145051 ER4042H(D) SMALL SIZE USE**
c. PIN 4,7,8 TUBING
d. VARNISH - OK
e. TOP &BOTTOM bonding (4 points)

MATERIALS :
* LAYER TAPE 130℃ AS SPECIFIED IN UL FILE #E105147(S)
* MARGIN TAPE 130℃ AS SPECIFIED IN UL FILE #E105147(S)
* WIRE, TEX-E, RATED 130℃ AS SPECIFIED IN UL FILE #E206440
* P/N 6105263001CORE,EER4042, PL7 SAW WHA
* P/N 6145051 BOBBIN ER4042 PH,H. UL FILE #E41429
*** P/N 6871138 VARNISH DVB-2180T OR EQUIVALENT**

ELECTRICAL SPECIFICATION:
* DIELECTRIC SPECIFICATIONS:
4000 VAC FROM PRIMARY AND CONTROL WINDINGS TO SECONDARY WINDINGS.
1500 VAC FROM PRIMARY AND CONTROL WINDINGS TO CORE.
1500 VAC FROM SECONDARY WINDINGS TO CORE.
* PRI. INDUCTANCE, **390uH** WITH ±5% TOLERANCE, SIDE GAP.(GAP PAPER USE)

**SAFETY**
* CLASS B INSULATION

Misc ID 7-12

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| ITEM | S/W TRANSFORMER | PART NO | 3025579005A | REV | A |

**Insulating Tape - Component**

See General Information for Insulating Tape - Component

DUCK SUNG HITECH CO LTD E105147
DAESUNG BLDG
677 JAYANG-DONG
KWANG JIN-KU
SEOUL, 133-190 REPUBLIC OF KOREA

**Polyester film insulating tape, acrylic adhesive**, Cat. No. DTS-204, rated 130 C.

**Acetate cloth insulating tape, acrylic adhesive**, Cat. No. 231*, rated 105 C.

**Glass cloth insulating tape, rubber adhesive**, Cat. No. 220-B, rated 130 C.

**Glass cloth insulating tape, silicone adhesive**, Cat. No. 221H*, rated 180 C.

**Acetate cloth insulating tape, rubber adhesive**, Cat. No. DTS-230, rated 105 C.

**Nomex (Aramid fiber) film insulating tape with non-woven polyester fiber reinforcement, acrylic adhesive**, Cat. No. DTS-241*, rated 130 C.

**Polyester film insulating tape, acrylic adhesive**, Cat. No. DTS-280*, rated 130 C.

**PET (Polyethylene-Terapthalate) film insulating tape, synthetic rubber adhesive** , Cat. No. DTS -204R %, rated 130 C.

**PET(Polyethylene-Terapthalate) film insulated tape, acrylic adhesive**, Cat. No. DTS-204F*#, rated 130C.

**Flame retardant cotton cloth tape, rubber adhesive**, Cat. No. DTS-250F*+.

**Flame retardant acetate cloth tape, rubber adhesive**, Cat. No. DTS-233F+.

**Flame retardant Aluminum foil tape, acrylic adhesive**, Cat. No. DTS-800A+.

**Flame retardant Aluminum foil with PET (Polyethylene-Terapthalate )film tape, acrylic adhesive**, Cat. No. DTS-810+.

**Flame retardant Copper foil tape, acrylic adhesive**, Cat. No. DTS-820+.

**Flame retardant Nickel coated Polyester Fiber tape, acrylic adhesive**, Cat. No. DTS-830+.

Glass cloth insulating tape, acrylic adhesive, Cat. No. DTS-225F*, rated 155 C.

**PET ( Polyethylene-Terapthalate) film insulating tape with non-woven polyester fiber reinforcement, rubber adhesive** , Cat. No. DTS-280R@, rated 130C.

**PET (Polyethylene-Terapthalate) film insulating tape, acrylic adhesive** , Cat. No. DTS-204BB, rated 130 C.

**PET (Polyethylene-Terapthalate) film insulating tape, acrylic adhesive** , Cat. No. DTS-204K^, rated 130 C.

**PET(Polyethylene-Terapthalate) film insulating tape, acrylic adhesive** , Cat. No. DTS-207S, rated 130C.

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
|---|---|---|---|---|---|
| | | | A | 201.07.28 | |
| | | | | | |
| | | | | | |

Misc ID 7-12

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| ITEM | S/W TRANSFORMER | PART NO | 3025579005A | REV | A |

QMFZ2 Component - Plastics Friday, October 24, 2003 E41429

**SUMITOMO BAKELITE CO LTD**
5-8 HIGASHI-SHINAGAWA 2-CHOME SHINAGAWA-KU TOKYO 140-0002 JP

Material Designation: PM-9820

Product Description: Phenolic (PF), designated "Sumikon" furnished as pellets, granular material.

| Color | Min. Thick. (mm) | Flame Class | HWI | HAI | RTI Elec | RTI Imp | RTI Str | IEC GWIT | IEC GWFI |
|---|---|---|---|---|---|---|---|---|---|
| BK | 0.16 | V-0 | - | - | 150 | 150 | 150 | - | - |
| | 0.51 | V-0 | 3 | 1 | 150 | 150 | 150 | - | - |
| BN | 0.18 | V-0 | - | - | 150 | 150 | 150 | - | - |
| | 0.70 | V-0 | 1 | 2 | 150 | 150 | 150 | - | - |
| | 1.5 | V-0 | 0 | 2 | 150 | 150 | 150 | - | - |
| | 3.0 | V-0 | 0 | 2 | 150 | 150 | 150 | - | - |

**CTI:** 3 **IEC CTI** (V): - **HVTR:** 0 **D495:** 5 **IEC Ball Pressure** (°C): -

**Dielectric Strength** (kV/mm): 14 **Volume Resistivity** ($10^{x}$ohm-cm): 11 **Dimensional Stability**(%): -
**ISO Tensile Strength** (MPa): - **ISO Flexural Strength** (MPa): - **ISO Heat Deflection** (°C): -
**ISO Tensile Impact** (kJ/m$^2$): - **ISO Izod Impact** (kJ/m$^2$): - **ISO Charpy Impact** (kJ/m$^2$): -

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
|---|---|---|---|---|---|
| | | | A | 2011.07.28 | |
| | | | | | |
| | | | | | |

Misc ID 7-12

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| ITEM | S/W TRANSFORMER | PART NO | 3025579005A | REV | A |

**FURUKAWA ELECTRIC CO LTD** E206440
HIRATSUKA MAGNET WIRE WORKS
5-1-9 HIGASHI YAHATA
HIRATSUKA-SHI, KANAGAWA 254-0016 JAPAN

Cat. Nos. FSX-E, SX-E, basic insulation rated 120° C (Class E), 354 V peak for Information Technology Equipment, 40 - 29 AWG (0.08 - 0.30 mm).

Cat. No. FWX-E, supplementary insulation or basic insulation rated 120° C (Class E), 354 V peak for Information Technology Equipment, 40 - 29 AWG (0.08 - 0.30 mm).

Cat. Nos. TEX-E, TEX-EA, reinforced insulation rated 130° C (Class B), 1.41 kV peak for Information Technology Equipment, 32-18 AWG (0.20 - 1.0 mm).

Cat. No. TEX-ELZ, reinforced insulation rated 130° C, (Class B), 1.41 kV peak for Information Technology Equipment, 30 AWG - 21 AWG (7strands each 0.10 mm - 7 strands each 0.30 mm).

Cat. No. TEX-ECEW3, reinforced insulation rated 130° C (Class B), 1.41 kV peak for Information Technology Equipment, 33 - 19 AWG (0.18 - 0.912 mm).

Cat. No. TEX-B, reinforced insulation rated 130° C (Class B), 1.4 kV peak for Information Technology Equipment, 32 - 18 AWG (0.20 - 1.0 mm).

Cat. No. TEX-FS, reinforced insulation rated 155° C (Class F), 250 V rms for medical and dental equipment, and 1.41 kV peak for Information Technology Equipment, 32-18 AWG (0.20 - 1.0 mm).

Cat No. TEX-BS, reinforced insulation rated 130° C (Class B), 1.41 kV peak for Information Technology Equipment, 32-18 AWG (0.20 - 1.0 mm).

Cat. Nos. FSX-B, basic insulation rated 130° C (Class B), 354 V peak for Information Technology Equipment, 0.19 - 0.11 mm).

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
|---|---|---|---|---|---|
| | | | A | 2011.07.28 | |
| | | | | | |
| | | | | | |

Misc ID 7-12

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| ITEM | S/W TRANSFORMER | PART NO | 3025579005A | REV | A |

**LS CABLE LTD** E84393
LS TOWER 1026-6
HOGYE-DONG
DONGAN-GU
ANYANG-CITY, KYUNGKI-DO 431-080 REPUBLIC OF KOREA

| Cat. No. | Max V | Max Oper Temp | Shrinkdown Class | Col Recognized | VW-1 Rated # |
|---|---|---|---|---|---|
| **Flexible heat shrinkable polyolefin tubing.** | | | | | |
| GSHS-1605G | 600 | 105 | 1 | All except Clear | Yes |
| GSHS-1625G | 600 | 125 | 1 | All except Clear | Yes |
| GSHS-1635F | 600 | 125 | 1 | All except Clear | Yes |
| GSHS-1625LT | 600 | 125 | 1 | All except Clear | Yes |
| GSHS-1605 | 600 | 105 | 1 | All except Clear | Yes |
| GSHS-1625 | 600 | 125 | 1 | All except Clear | Yes |
| GSHS-3635 | 600 | 125 | 1 | All except Clear | Yes |
| GSHS-1625T | 150 | 125 | 1 | All except Clear | Yes |
| GSHS-1625GT | 300 | 125 | 1 | All except Clear | Yes |
| LS-PMWT-FR | 600 | 125 | 1 | All except Clear | Yes |
| LS-PHWT-FR | 600 | 125 | 1 | All except Clear | Yes |
| **Rigid, heat shrinkable PVF2 tubing.** | | | | | |
| GSHS-1675, -3675, -1650F | 600 | 150 | 1 | All, CL | Yes |
| **Not heat shrinkable PVC tubing.** | | | | | |
| VIT-300 | 300 | 105 | ? | All, CL | Yes |
| VIT-600 | 600 | 105 | ? | All, CL | Yes |
| **Not heat shrinkable Polyolefin tubing.** | | | | | |
| FEIT | 600 | 105 | ? | Gray | Yes |

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
|---|---|---|---|---|---|
| | | | A | 2011.07.28 | |
| | | | | | |
| | | | | | |

Ref. Certif. No.

**DK-28210-M1-UL**

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

SYSTEME CEI D'ACCEPTATION MUTUELLE DE CERTIFICATS D'ESSAIS DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC

## CB TEST CERTIFICATE CERTIFICAT D'ESSAI OC

| | |
|---|---|
| Product<br>Produit | Switching Power Supply |
| Name and address of the applicant<br>Nom et adresse du demandeur | BRIDGEPOWER CORP<br>964 GOSAEK-DONG GWONSEON-GU SUWON-SI<br>GYEONGGI-DO 441-813 KOREA |
| Name and address of the manufacturer<br>Nom et adresse du fabricant | BRIDGEPOWER CORP<br>964 GOSAEK-DONG GWONSEON-GU SUWON-SI<br>GYEONGGI-DO 441-813 KOREA |
| Name and address of the factory<br>Nom et adresse de l'usine<br>Note: *When more than one factory, please report on page 2*<br>Note: *Lorsque il y plus d'une usine, veuillez utiliser la 2ème page* | BRIDGEPOWER CORP<br>964 GOSAEK-DONG GWONSEON-GU SUWON-SI<br>GYEONGGI-DO 441-813<br>KOREA<br>☒ Additional Information on page 2 |
| Ratings and principal characteristics<br>Valeurs nominales et caractéristiques principales | See Page 2 |
| Trademark (if any)<br>Marque de fabrique (si elle existe) | None |
| Type of Manufacturer's Testing Laboratories used<br>Type de programme du laboratoire d'essais constructeur | |
| Model / Type Ref.<br>Ref. De type | See Page 2 |
| Additional information (if necessary may also be reported on page 2)<br>Les informations complémentaires (si nécessaire,, peuvent être indiqués sur la 2ème page | ☒ Additional Information on page 2 |
| A sample of the product was tested and found to be in conformity with<br>Un échantillon de ce produit a été essayé et a été considéré conforme à la | IEC 60950-1(ed.2), IEC 60950-1(ed.2);am1 |
| As shown in the Test Report Ref. No. which forms part of this Certificate<br>Comme indiqué dans le Rapport d'essais numéro de référence qui constitue partie de ce Certificat | E300305-A33-CB-4 issued on 2012-10-12 |

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme **National de Certification**

☐ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

**For full legal entity names see www.ul.com/ncbnames**

Date: 2012-10-12
Original Issue Date: 2012-09-24

Signature:

Jan-Erik Storgaard

Model Details:
JPW1100**12**F**, JPW1100**13**F**, JPW1100**15**F**,
JPW1100**16**F**, JPW1100**18**F**, JPW1100**19**F**,
JPW1100**24**F**, CENB1100*12**F**, CENB1100*13**F**,
CENB1100*15**F**, CENB1100*16**F**, CENB1100*18**F**,
CENB1100*19**F**, CENB1100*24**F**, JMW1100**12**F**,
JMW1100**13**F**, JMW1100**15**F**, JMW1100**16**F**,
JMW1100**18**F**, JMW1100**19**F**, JMW1100**24**F**,
MENB1100*12**F**, MENB1100*13**F**, MENB1100*15**F**,
MENB1100*16**F**, MENB1100*18**F**, MENB1100*19**F**, and
MENB1100*24**F** (Where * may be alphanumeric, "for marketing
purpose and no impact safety related critical components and constructions")

Factories:
WENDENG JEIL ELECTRONICS CO LTD
DONG SHOU GUANGZHOU LU KAIFA-QU WENDENG-SHI SHANDONG
CHINA

Ratings:
Input Rating: 100-240 Vac, 50-60 Hz, 2.0 A
Output Rating: 12.0 Vdc, 7.5 A or
13.0 Vdc, 6.92 A or
15.0 Vdc, 6.4 A or
16.0 Vdc, 6.0 A or
18.0 Vdc, 5.6 A or
19.0 Vdc, 5.2 A or
24.0 Vdc, 4.2 A

Additional Information:
The original report was modified to include the following changes/additions:
- Add optical isolator certification information under mark of conformity section
- Add bobbin's manufacturer name
- Correct optical isolator CR,CL from "thermal cycling conducted " to measured CR, CP in table 2.10.2 , 2.10.3 and 2.10.4
- Delete Enclosure type HN-1064W(+) in critical component list
- Correct electric strength table

Additionally evaluated to EN60950-1:2006/A11:2009/A1:2010/ A12:2011;
National Differences specified in the CB Test Report.

## Additional information (if necessary)
## Information complémentaire (si nécessaire)

☐ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

**For full legal entity names see www.ul.com/ncbnames**

Date: 2012-10-12
Original Issue Date: 2012-09-24

Signature:
Jan-Erik Storgaard

**Test Report issued under the responsibility of:**

# TEST REPORT
# IEC 60950-1
# Information technology equipment - Safety - Part 1: General requirements

| | |
|---|---|
| **Report Reference No** ..... : | E300305-A33-CB-4 |
| Date of issue ..... : | 2012-09-24 |
| Total number of pages ..... : | 26 |
| **CB Testing Laboratory** ..... : | UL Korea, Ltd. |
| Address ..... : | #808, Manhatan Building, 36-2 Yeouido-Dong, Yeongdeungpo-Gu, Seoul 150-749, Korea |
| **Applicant's name** ..... : | BRIDGEPOWER CORP |
| Address ..... : | 964 GOSAEK-DONG<br>GWONSEON-GU<br>SUWON-SI GYEONGGI-DO 441-813 KOREA |
| **Test specification:** | |
| Standard ..... : | IEC 60950-1:2005 (2nd Edition); Am 1:2009 |
| Test procedure ..... : | CB Scheme |
| Non-standard test method ..... : | N/A |
| **Test Report Form No.** ..... : | IEC60950_1B |
| Test Report Form originator ..... : | SGS Fimko Ltd |
| Master TRF ..... : | 2010-04 |

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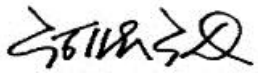
If this test Report is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

**This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.**

| | |
|---|---|
| **Test item description** ..... : | Switching Power Supply |
| Trade Mark ..... : | None |
| Manufacturer ..... : | BRIDGEPOWER CORP<br>964 GOSAEK-DONG<br>GWONSEON-GU<br>SUWON-SI GYEONGGI-DO 441-813 KOREA |
| Model/Type reference ..... : | JPW1100**12**F**, JPW1100**13**F**, JPW1100**15**F**, JPW1100**16**F**, JPW1100**18**F**, JPW1100**19**F**, JPW1100**24**F**, CENB1100*12**F**, CENB1100*13**F**, CENB1100*15**F**, CENB1100*16**F**, CENB1100*18**F**, CENB1100*19**F**, CENB1100*24**F**, JMW1100**12**F**, JMW1100**13**F**, JMW1100**15**F**, JMW1100**16**F**, JMW1100**18**F**, JMW1100**19**F**, JMW1100**24**F**, MENB1100*12**F**, MENB1100*13**F**, MENB1100*15**F**, MENB1100*16**F**, MENB1100*18**F**, MENB1100*19**F**, and MENB1100*24**F** (Where * may be alphanumeric, "for marketing purpose and no impact safety related critical components and constructions") |
| Ratings ..... : | Input Rating: 100-240 Vac, 50-60 Hz, 2.0 A<br>Output Rating: 12.0 Vdc, 7.5 A or<br>13.0 Vdc, 6.92A or<br>15.0 Vdc, 6.4 A or<br>16.0Vdc, 6.0 A or<br>18.0 Vdc, 5.6 A or<br>19.0 Vdc, 5.2A or<br>24.0 Vdc, 4.2 A |

| **Testing procedure and testing location:** | | | |
|---|---|---|---|
| [x] | **CB Testing Laboratory** | | |
| | Testing location / address..... : | UL Korea, Ltd. #808, Manhatan Building, 36-2 Yeouido-Dong, Yeongdeungpo-Gu, Seoul 150-749, Korea | |
| [ ] | **Associated CB Test Laboratory** | | |
| | Testing location / address..... : | | |
| | Tested by (name + signature) ..... : | InYoung Hwang | |
| | Approved by (name + signature) ... : | JongDae Kim |  |
| [ ] | **Testing Procedure: TMP** | | |
| | Tested by (name + signature) ..... : | | |
| | Approved by (+ signature) ..... : | | |
| | Testing location / address..... : | | |
| [ ] | **Testing Procedure: WMT** | | |
| | Tested by (name + signature) ..... : | | |
| | Witnessed by (+ signature)..... : | | |
| | Approved by (+ signature) ..... : | | |
| | Testing location / address..... : | | |
| [ ] | **Testing Procedure: SMT** | | |
| | Tested by (name + signature) ..... : | | |
| | Approved by (+ signature) ..... : | | |
| | Supervised by (+ signature) ..... : | | |
| | Testing location / address..... : | | |
| [ ] | **Testing Procedure: RMT** | | |
| | Tested by (name + signature) ..... : | | |
| | Approved by (+ signature) ..... : | | |
| | Supervised by (+ signature) ..... : | | |
| | Testing location / address..... : | | |

**List of Attachments**

National Differences (0 pages)

Enclosures (0 pages)

**Summary of Testing:**

No tests were conducted

**Summary of Compliance with National Differences:**

Countries outside the CB Scheme membership may also accept this report.

List of countries addressed: AT, BE, CA, CH, CN, CZ, DE, DK, ES, EU, FI, FR, GB, GR, HU, IE, IL, IT, JP,

KR, NL, NO, PL, PT, SE, SG, SI, SK, US
The product fulfills the requirements of: N/A

**Copy of Marking Plate** - Refer to Enclosure titled Marking Plate for copy.

| | |
|---|---|
| **Test item particulars :** | |
| Equipment mobility .....: | movable |
| Connection to the mains .....: | pluggable A |
| Operating condition .....: | continuous |
| Access location .....: | N/A |
| Over voltage category (OVC) .....: | OVC II |
| Mains supply tolerance (%) or absolute mains supply values .....: | +10%, -10% |
| Tested for IT power systems .....: | Yes(for Norway only) |
| IT testing, phase-phase voltage (V) .....: | 230 Vac |
| Class of equipment .....: | Class I (earthed) |
| Considered current rating of protective device as part of the building installation (A) .....: | 2.0 |
| Pollution degree (PD) .....: | PD 2 |
| IP protection class .....: | IP X0 |
| Altitude of operation (m) .....: | up to 5000m |
| Altitude of test laboratory (m) .....: | N/A |
| Mass of equipment (kg) .....: | 0.7 |
| **Possible test case verdicts:** | |
| - test case does not apply to the test object .....: | N / A |
| - test object does meet the requirement .....: | P(Pass) |
| - test object does not meet the requirement .....: | F(Fail) |
| **Testing:** | |
| Date(s) of receipt of test item .....: | N/A |
| Date(s) of Performance of tests .....: | N/A |

**General remarks:**

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the testing laboratory.

"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.

Throughout this report a point is used as the decimal separator.

**Manufacturer's Declaration per Sub Clause 6.25 of IECEE 02:**

The application for obtaining a CB Test Certificate includes more than one factory and a declaration form the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided ..... Yes

When differences exist, they shall be identified in the General Product Information section.

**Name and address of Factory(ies):** BRIDGEPOWER CORP

964 GOSAEK-DONG
GWONSEON-GU
SUWON-SI GYEONGGI-DO 441-813 KOREA

WENDENG JEIL ELECTRONICS CO LTD
DONG SHOU GUANGZHOU LU
KAIFA-QU
WENDENG-SHI SHANDONG CHINA

**GENERAL PRODUCT INFORMATION:**

**Report Summary**

The original report was modified on 2012-10-12 to include the following changes/additions:
E300305-A33-CB-4, Correction1
- Add optical isolator certification information under mark of conformity section due to missing
- Add bobbin's manufacturer name due to missing
- Correct optical isolator CR,CL from "thermal cycling conducted " to measured CR, CP in table 2.10.2 , 2.10.3 and 2.10.4 due to typo error
- Delete Enclosure type HN-1064W(+) in critical component list due to typo error
- Correct electric strength table due to typo error

**Product Description**

Switching Power Supply (AC/DC adapter), consists of electronic components mounted on PWB, a switching transformer and electronic components mounted on PWB, housed with a plastic enclosure.

**Model Differences**

JPW1100**12**F**, JPW1100**15**F**, JPW1100**18**F**, JPW1100**19**F**, JPW1100**24**F**, CENB1100*12**F**, CENB1100*15**F**, CENB1100*18**F**, CENB1100*19**F**, CENB1100*24**F**, JMW1100**12**F**, JMW1100**15**F**, JMW1100**18**F**, JMW1100**19**F**, JMW1100**24**F**, MENB1100*12**F**, MENB1100*15**F**, MENB1100*18**F**, MENB1100*19**F**, and MENB1100*24**F** (Where * may be alphanumeric, "for marketing purpose and no impact safety related critical components and constructions")

Models CENB1100*(b)**(c)**(d)F**(e), MENB1100*(b)**(c)**(d)F**(e), and JMW1100*(a)*(b)**(c)**(d)F**(e) are identical to JPW1100*(a)*(b)**(c)**(d)F**(e), except model designations as follows;

Nomenclature

JPW1100*(a)*(b)**(c)**(d)F**(e) or JMW1100*(a)*(b)**(c)**(d)F**(e) or CENB1100*(b)**(c)**(d)F**(e) or MENB1100*(b)**(c)**(d)F**(e)
(a) means custom options, may be K or C;
(b) means design revision changes, may be A to Z;
(c) means output voltages, may be 12, 13, 15, 16, 18,19 or 24;
(d) means standards output cord options, may be 00 to 99;
(e) means custom options, may be 00 to 99 or AA to ZZ.

The marked models as 12, 13, 15, 16, 18, 19 and 24 on (c) nomenclature are identical individually, except model designations, output ratings, transformers and secondary circuits.

The Models JPW1100**13**F**, JPW1100**16**F**, CENB1100*13**F**,CENB1100*16**F**, JMW1100**13**F**, JMW1100**16**F**, MENB1100*13**F**, and MENB1100*16**F** are identical to Model JPW1100**12**F** except for model designation, output ratings, transformers and secondary circuits.

The model JPW1100**19**F**, CENB1100*19**F**, JMW1100**19**F**, MENB1100*19**F** are identical to JPW1100**12**F** except for model designation, output ratings, transformers and secondary circuits.

**Additional Information**

Maximum Normal Load Condition: Rated Output Currents
JPW1100KA1200F01: 12.0 Vdc, 7.5 A;
JPW1100KA1500F01: 15.0 Vdc, 6.4 A;
JPW1100KA1800F01: 18.0 Vdc, 5.6 A;
JPW1100KA2400F01: 24.0 Vdc, 4.2 A.

This equipment is not provided with user's manual.

Procedure Deviation:
Argentina*, Australia / New Zealand, Austria**, Belgium**, China, Czech Republic**, Denmark, Finland, France**, Germany, Greece**, Group, Hungary*, India*, Ireland*, Israel*, Italy*, Japan*, Kenya*, Korea, Malaysia*, Netherlands**, Norway, Poland*, Portugal*, Singapore*, Slovakia**, Slovenia*, Spain*, Sweden, Switzerland**, and United Kingdom.
* - No National Differences Declared, ** - Only Group Differences.

Before placing the products in the different countries, the manufacturer has to guarantee that:
1. Operating instructions and warnings are written in an accepted language of the certain country.
2. The equipment is in compliance with the national standards of the certain country.

E300305-A33-CB-3, Reissue
- Added Thermal Fuse (Seki Controls Co., Ltd., Type ST-22) in critical component list.

E300305-A33-CB-4, Reissue
- Upgrade report from IEC 60950-1 2nd edition to IEC 60950-1 2nd edition, Amendment1
- Altitude of operation is up to 2000m to up to 5000m refer to IEC 60664-1 table A.2
- Humidity test was conducted at 40 degreeC, 95% , 120hours for China Deviation.
- National Difference for China is revised.
- Tma is changed from 30 degreeC to 35 degreeC

E300305-A33-CB-4, Correction1
- Add optical isolator certification information under mark of conformity section due to missing
- Add bobbin's manufacturer name due to missing
- Correct optical isolator CR,CL from "thermal cycling conducted " to measured CR, CP in table 2.10.2 , 2.10.3 and 2.10.4 due to typo error
- Delete Enclosure type HN-1064W(+) in critical component list due to typo error
- Correct electric strength table due to typo error

**Technical Considerations**

- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer’s specification of: 35

- The means of connection to the mains supply is: Pluggable A, Detachable Power Supply Cord,
- The product is intended for use on the following power systems: TN and IT (for Norway only),
- The equipment disconnect device is considered to be: Appliance Inlet
- The product was investigated to the following additional standards: EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 (which includes all European national differences, including those specified in this test report).

Abbreviations used in the report:

| | | | |
|---|---|---|---|
| - normal condition | N.C. | - single fault condition | S.F.C |
| - operational insulation | OP | - basic insulation | BI |
| - basic insulation between parts of opposite polarity: | BOP | - supplementary insulation | SI |
| - double insulation | DI | - reinforced insulation | RI |

Indicate used abbreviations (if any)

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| 1.5.1 | **TABLE: list of critical components** | | | | Pass |
|---|---|---|---|---|---|
| object/part or Description | manufacturer/ trademark | type/model | technical data | standard (Edition or year) | mark(s) of conformity[1]) |
| Enclosure (Electrical/Mechical/Fire) | Sabic Innovative Plastics B V, Sabic Innovative Plastics Japan L L C or Sabic Innovative Plastics US L L C | 940(f1) | V-0 Overall approximately 149.8 by 86.6 by 51.0 mm, minimum 2.0 mm thick. Composed of two pieces, secured together by screws. | UL94, UL746C | USR, - |
| Enclosure(Electrical/Mechanical/Fire) Alternate | Cheil Industries Inc. Chemicals Div. | HN-1064(+) | V-0 Overall approximately 149.8 by 86.6 by 51.0 mm, minimum 2.0 mm thick. Composed of two pieces, secured together by screws. | UL94, UL746C | USR, - |
| Appliance Inlet | Rong Feng Industrial Co., Ltd. | SS-120-PCB | Minimum 10A, 250V. | UL498, IEC60320 | USR, SEMKO |
| Appliance Inlet Alternate | Rich Bay Co., Ltd. | R-30190 | Minimum 10A, 250V. | UL498, IEC60320 | USR, VDE |
| Fuse (F1) (Optional) | Littelfuse Wickmann-Werke GmbH | 392 | 250V, 3.15A | UL248, VDE0820, EN60127 | USR, VDE |
| Fuse (F1) (Optional) Alternate | Save Fusetech Inc. | SS-5 | 250V, 3.15A | UL248, VDE0820, EN60127 | USR, VDE |
| Thermal Fuse (F1) (Optional) Alternate | Seki Controls Co., Ltd. | ST-22 | 250V, 7A | EN60730-1, VDE0631-1 | USR, VDE |
| Fuse (F2) | Littelfuse Wickmann-Werke GmbH | 392 | 250V, 3.15A | UL248, VDE0820, EN60127 | USR, VDE |
| Fuse (F2) Alternate | Save Fusetech Inc. | SS-5 | 250V, 3.15A | UL248, VDE0820, EN60127 | USR, VDE |
| Thermister (TH1) | Various | Various | NTC, 5ohm at 25°C. | Tested in equipment. | -, - |
| Discharging Resistors | Various | Various | 510Kohm 1/8W | Tested in equipment. | -, - |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

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| (RP111, RP112) | | | | | |
| Varistor (TNR1) Optional | Amotech Co., Ltd. | INR14D471 | (Line to Line) Minimum 470V Overall 14 mm. | UL1449, IEC60384-14 | USR, VDE |
| Varistor (TNR1) Optional) Alternate | Success Electronics Co., Ltd. | SVR14D471K | (Line to Line) Minimum 470V Overall 14 mm. | UL1449, IEC60384-14 | USR, VDE |
| X-Capacitor (CX1) | Carli Electronics Co., Ltd. | MPX | (Line to Line) 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC60384-14. | UL1414, IEC384-14, EN132400 | USR, FIMKO NEMKO SEMKO |
| X-Capacitor (CX1) Alternate | Iskra Mis D D | KNB 1530 or 1562 or 1563 | (Line to Line) 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC60384-14. | UL1414, IEC384-14, EN132400 | USR, FIMKO, VDE |
| X-Capacitor (CX1) Alternate | Pilkor Electronics Co., Ltd. | PCX2 335M or PCX2 337 | (Line to Line) 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC60384-14. | UL1414, IEC384-14, EN132400 | USR, DEMKO FIMKO |
| X-Capacitor (CX1) Alternate | Okaya Electric Industries Co., Ltd. | LE | (Line to Line) 250V, maximum .0.47uF. Marked with X1 or X2. Meets IEC60384-14. | UL1414, IEC384-14, EN132400 | USR, SEMKO |
| X-Capacitor (CX1) Alternate | Sun Il Electronics Industry Co., Ltd. | 436D | (Line to Line) 250V, maximum .0.47uF. Marked with X1 or X2. Meets IEC60384-14. | UL1414, IEC384-14, EN132400 | USR, FIMKO |
| Line Filter (LF1) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | 3025560 | Core: Ferrite. 24 by 24 mm. Coils: Polyurethane Wire, minimum 130°C Bobbin: (QMFZ2), SUMITOMO BAKELITE CO LTD, type;PM-9820, V-0, 150°C. | Tested in equipment. | -, - |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

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|---|---|---|---|---|---|
| Line Filter (LP1, LP2, LP4, LP5) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | 6872250 | Core: Ferrite 13.7 by 8 mm. Coils: Polyurethane Wire, minimum 130°C Insulation Tubing/Sleeving: FEP, PTFE, PVC, TFE, Neoprene, Polyimide or VW-1; 130°C. | Tested in equipment. | -, - |
| PFC Coil for 12V, 18V, 24V output | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | Part No.: 3025578 | Core: Ferrite 26 by 25 mm Coils: Polyurethane Wire, minimum 130°C Bobbin: (QMFZ2), SUMITOMO BAKELITE CO LTD, type;PM-9820, V-0, 150°C. | Tested in equipment. | -, - |
| PFC Coil for 15V output | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | Part No.: 3025578001 | Core: Ferrite 26 by 25 mm Coils: Polyurethane Wire, minimum 130°C Bobbin: (QMFZ2), SUMITOMO BAKELITE CO LTD, type;PM-9820, V-0, 150°C. | Tested in equipment. | -, - |
| Y-Capacitors (CY1, CY2) | Success Electronics Co., Ltd. | SE or SB | (Line to Ground) 250V, maximum 2200pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | USR, FIMKO |
| Y-Capacitors (CY1, CY2) - Alternate | Murata Mfg. Co., Ltd. | KX or KY | (Line to Ground) 250V, maximum 2200pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | USR, FIMKO |
| Y-Capacitors (CY1, CY2) - | TDK-EPC Corp. | CD or CS | (Line to Ground) 250V, maximum | UL1414, IEC60384-14, | USR, VDE |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

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| Alternate | | | 2200pF. Marked with Y1 or Y2. Meets IEC60384-14. | EN132400 | |
| Bridge Diode (BD1) | Various | Various | Minimum 600V, maximum 10A. | Tested in equipment. | -, - |
| Bridging Capacitors (CY3, CY4) | Success Electronics Co., Ltd. | SE or SB | (Primary to Secondary) 250V, maximum 1500pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | USR, FIMKO |
| Bridging Capacitors (CY3, CY4) Alternate | Murata Mfg. Co., Ltd. | KX or KY | (Primary to Secondary) 250V, maximum 1500pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | USR, FIMKO |
| Bridging Capacitors (CY3, CY4) Alternate | TDK-EPC Corp. | CD or CS | (Primary to Secondary) 250V, maximum 1500pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | USR, VDE |
| Electrolytic Capacitor (CP1) | Various | Various | Minimum 400V, maximum 150uF, minimum 105°C. | Tested in equipment. | -, - |
| FET (QP1) | Various | Various | 550V, 18A Secured to Heat Sink (HS1) by screw. | Tested in equipment. | -, - |
| FET (QP2) | Various | Various | SMD type. 60V, 115mA | Tested in equipment. | -, - |
| FET (QP3) | Various | Various | 800V, 11A or 13A Secured to Heat Sink (HS1) by screw. | Tested in equipment. | -, - |
| Switching IC (UP1) | Various | Various | Maximum 22V, 0.03A. | Tested in equipment. | -, - |
| Switching IC (UP2) | Various | Various | Maximum 18V, 5.0mA. | Tested in equipment. | -, - |
| Main Transformer (T1) | Bridgepower Corp. or Wendeng Jeil | JEC(B) (Part No.: 3025579011 for | Class B. Core: Ferrite 40 by 42 mm. Coils: | UL1446 | USR, - |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

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| | Electronics Co., Ltd. | 12V output; Part No.: 3025579012 for 15V output; Part No.: 3025579013 for 18V output; Part No.: 3025579014 for 24V output) | Polyurethane Wire, minimum 130°C TIWW: Furukawa Electric Co., Ltd., TEX-E, 130°C Bobbin: SUMITOMO BAKELITE CO LTD, type;PM-9820 (QMFZ2), V-0, 150°C, Insulation tape, DUCK SUNG HITECH CO LTD, DUCK SUNG HITECH CO LTD, Cat No. 220-8 or DTS-204 | | |
| Optical Isolator (PSU1) | Vishay Semiconductor GmbH | TCET1103(G) | Double Protection. Isolation 5000Vac. DTI;0.4mmExternal CR,CL . minimum 6.3 mm. Complied with 2.10.9 | UL1577, EN60950 | USR, BSI No.7402 |
| Optical Isolator (PSU1) Alternate | Cosmo Electronics Corp. | KP1010 | Double Protection. Isolation 5000Vac.DTI;0.4 mm External CR,CL minimum 6.5 mm.Complied with 2.10.9 | UL1577, EN60950 | USR, SEMKO No.1016433 |
| Optical Isolator (PSU1) Alternate | Sharp Corp. | PC123 | Double Protection. Isolation 5000Vac.DTI;0.4 mm External CR,CL minimum 7.62mm. .Complied with 2.10.9 | UL1577, EN60950 | USR, SEMKO No.9216212 |
| Optical Isolator | Kodenshi Corp. | PC-17K or PC- | Double | UL1577 | USR, Semko No. |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

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|---|---|---|---|---|---|
| (PSU1) Alternate | | 17K1C | Protection. Isolation 5000Vac. DTI;0.4mm, External CR,CL minimum 7.0mm mm.Complied with 2.10.9 | | 9805214/01-04 |
| Zener Diodes (DP14, ZD3, DP6) | Various | Various | 18V, 0.5W | Tested in equipment. | -, - |
| Insulation Sheet (Around T1 Primary) | Various | Various | One piece. V-0, minimum 125°C. Overall approximately 42 by 42 mm, minimum 0.4 mm thick. | UL94, UL746 | USR, - |
| Heat Sink (HS1) (Primary) | Various | Various | Metal. Overall approximately. 128.7 by 36 mm, 2 mm thick. Wound by Polyester Film Tape, (OANZ2), minimum 130°C, minimum three turns in primary side. | Tested in equipment. | -, - |
| Heat Sink (HS2) (Secondary) | Various | Various | Metal. Overall approximately. 69.3 by 36 mm, 3 mm thick. Wound by Polyester Film Tape, (OANZ2), minimum 130°C, minimum three turns in primary side. | Tested in equipment. | -, - |
| Heat Sink (HS3) (Around BD1)_optional | Various | Various | Metal. Overall approximately 40 by 30 mm, 1.5 mm thick. Wound by Polyester Film Tape, (OANZ2), minimum 130°C, | | -, - |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

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| | | | minimum 1 turns in primary side. | | |
| Printed Wiring Board (PWB) | Various | Various | Minimum V-1, 130°C. | UL796 | USR, - |
| Protective Bonding Conductor | Various | Various | Mechanically clamped or secured on PWB from Appliance Inlet. Minimum 18 AWG, Green-and-Yellow Insulation. | UL758 | USR, - |
| Bonding Glue | Various | Various | Minimum V-2, minimum 100°C for additional secureness of Internal Conductor. | UL94, UL746 | USR, - |
| Output Cable | Various | Various | For use of External Interconnection), Style No. 2464 or 1777, VW-1 or FT-1, minimum 300V, 80°C, 18 AWG, maximum 3.05 m long. | UL758 | USR, - |
| Nameplate Label | Various | Various | Suitable for use on surface of Polycarbonate (PC) with maximum 60°C surface temperature. | UL969 | USR, - |
| For Models JPW1100*B12**F**,JPW1100*B13**F**,JPW1100*B15**F**,JPW1100*B16**F**, JPW1100*B18**F**, JPW1100*B19**F**, JPW1100*B24**F**,CENB1100A12**F**,CENB1100A13**F**,CEN | - | - | - | - | -, - |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

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|---|---|---|---|---|---|
| B1100A15**F**, CENB1100A16**F**, CENB1100A18**F**, CENB1100A19**F**, CENB1100A24**F**, JMW1100*B12**F**,JMW1100*B13**F**,JMW1100*B15**F**,JMW1100*B16**F**, JMW1100*B18**F**, JMW1100*B19**F**, JMW1100*B24**F**,MENB1100A12**F**,MENB1100A13**F**,MENB1100A15**F**, MENB1100A16**F**, MENB1100A18**F**, MENB1100A19**F**, MENB1100A24**F** | | | | | |
| Enclosure (Electrical/Mechanical/Fire) | Sabic Innovative Plastics B V, Sabic Innovative Plastics Japan L L C or Sabic Innovative Plastics US L L C | 940(f1) | V-0 Overall approximately 149.8 by 86.6 by 51.0 mm, minimum 2.0 mm thick. Composed of two pieces. Secured together by screws. | UL94, UL746C | UL, - |
| Enclosure (Electrical/Mechanical/Fire) Alternate | Cheil Industries Inc. Chemicals Div. | HN-1064(+) | V-0 Overall approximately 149.8 by 86.6 by 51.0 mm, minimum 2.0 mm thick. Composed of two pieces. | UL94, UL746C | UL, - |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
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| | | | Secured together by screws. | | |
| Appliance Inlet | Rong Feng Industrial Co., Ltd. | SS-120-PCB | Minimum 10A, 250V. | UL498, IEC60320 | UL, SEMKO |
| Appliance Inlet Alternate | Rich Bay Industrial Co., Ltd. | R-30190 | Minimum 10A, 250V. | UL498, IEC60320 | UL, VDE |
| Fuse (F1) | Littelfuse Wickmann-Werke GmbH | 392 | 250V, 3.15A | UL248, VDE0820, EN60127 | UL, VDE |
| Fuse (F1) Alternate | Save Fusetech Inc. | SS-5 | 250V, 3.15A | UL248, VDE0820, EN60127 | UL, VDE |
| Thermal Fuse (F1) (Optional) Alternate | Seki Controls Co., Ltd. | ST-22 | 250V, 7A | EN60730-1, VDE0631-1 | USR, VDE |
| Fuse (F2) - | Littelfuse Wickmann-Werke GmbH | 392 | 250V, 3.15A | UL248, VDE0820, EN60127 | UL, VDE |
| Fuse (F2) - Alternate | Save Fusetech Inc. | SS-5 | 250V, 3.15A | UL248, VDE0820, EN60127 | UL, VDE |
| Thermistor (TH1) | Various | Various | NTC, 5ohm at 25°C. | - | -, - |
| Discharging Resistors (RP30, RP31) | Various | Various | 180Kohm 1/8W. | - | -, - |
| Discharging Resistors (RP111, RP112) | Various | Various | 510Kohm 1/8W | - | -, - |
| Discharging IC (UP3) | Power Integrations Inc. | CAP014DG | 1uF, 780Kohm | - | -, - |
| Varistor (TNR1) Optional | Success Electronics Co., Ltd. | SVR14D471K | (Line to Line) 470V Overall 14 mm. | UL1449 IEC/EN61051 | UL, VDE |
| Varistor (TNR1) Optional Alternate | Amotech Co., Ltd. | INR14D471 | (Line to Line) 470V Overall 14 mm. | UL1449 IEC/EN61051 | UL, VDE |
| X-Capacitor (CX1) | Carli Electronics Co., Ltd. | MPX | (Line to Line) 250V, maximum 1uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX1) Alternate | Iskra Mis D D | KNB 1530 or 1562 or 1563 | (Line to Line) 250V, maximum 1uF. Marked with X1 or X2. Meets | UL1414, IEC60384-14, EN132400 | UL, FIMKO |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

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| | | | IEC384-14. | | |
| X-Capacitor (CX1) Alternate | Pilkor Electronics Co., Ltd. | PCX2 335M or PCX2 337 | (Line to Line) 250V, maximum 1uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX1) Alternate | Okaya Electric Industries Co., Ltd. | LE | (Line to Line) 250V, maximum 1uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX1) Alternate | Sun Il Electronics Industry Co., Ltd. | 436D | (Line to Line) 250V, maximum 1uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX2) | Carli Electronics Co., Ltd. | MPX | (Line to Line) 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX2) Alternate | Iskra Mis D D | KNB 1530 or 1562 or 1563 | 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX2) Alternate | Pilkor Electronics Co., Ltd. | PCX2 335M or PCX2 337 | 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX2) Alternate | Okaya Electric Industries Co., Ltd. | LE | 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX2) Alternate | Sun Il Electronics Industry Co., Ltd. | 436D | 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| Line Filter (LF1) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | 3025671A | Core: Ferrite 28 by 28 mm Coils: Polyurethane Wire, minimum 130°C. Bobbin: (QMFZ2), | - | -, - |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

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|---|---|---|---|---|---|
| | | | SUMITOMO BAKELITE CO LTD, type;PM-9820, V-0, 150°C. | | |
| Line Filter (LP4, LP5) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | Part No.: 3025642A | Core: Ferrite 13.7 by 8 mm Coils: Polyurethane Wire, minimum 130°C Insulation Tubing/Sleeving: FEP, PTFE, PVC, TFE, Neoprene, Polyimide or VW-1; 130°C. | - | -, - |
| PFC Coil (LP3) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | Part No.: 3025578A | Core: Ferrite 26 by 25 mm Coils: Polyurethane Wire, minimum 130°C. Bobbin: (QMFZ2), SUMITOMO BAKELITE CO LTD, type;PM-9820, V-0, 150°C. | - | -, - |
| Y-Capacitors (CY1, CY2) | Success Electronics Co., Ltd. | SE or SB | 250V, maximum 1000pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| Y-Capacitors (CY1, CY2) Alternate | Murata Mfg. Co., Ltd. | KX or KY | 250V, maximum 1000pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| Y-Capacitors (CY3, CY4) | Success Electronics Co., Ltd. | SE or SB | 250V, maximum 1500pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| Y-Capacitors (CY3, CY4) Alternate | Murata Mfg. Co., Ltd. | KX or KY | 250V, maximum 1500pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

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|---|---|---|---|---|---|
| Bridge Diode (BD1) | Various | Various | Minimum 600V, maximum 10A. | - | -, - |
| Electrolytic Capacitor (CP1) | Various | Various | Minimum 400V, maximum 150uF, minimum 105°C. | - | -, - |
| FET (QP1) | Various | Various | Minimum 550V, maximum 20A. Secured to Heat Sink (HS1) by screw. | - | -, - |
| FET (QP3) | Various | Various | 800V, 11A or 13A Secured to Heat Sink (HS1) by screw. | - | -, - |
| Switching IC (UP1) | Various | Various | Maximum 30V, 0.05A. | - | -, - |
| Switching IC (UP2) | Various | Various | Maximum 31V, 4.0mA. | - | -, - |
| Main Transformer (T1) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | JEC(B) (Part No.: 3025579001A for 12V, 13V output; Part No.: 3025579002A for 15V, 16V output; | (OBJY2), Class B Insulation System. Core: Ferrite 40 by 42 mm. PRI-SEC Coils: TIW: Furukawa Electric Co., Ltd., TEX-E, 130°C Bobbin:SUMITOMO BAKELITE CO LTD, type;PM-9820 (QMFZ2), V-0, 150°C,Insulation tape, DUCK SUNG HITECH CO LTD, Cat No. DTS-200* or DTS-204R or DTS-204K^ | UL1446 | UL, - |
| Main Transformer (T1) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | JEC(B) (Part No.: 3025579004A for 24V, output) | (OBJY2) Class B Insulation System. Core: Ferrite 40 by 42 mm PRI-SEC Coils: TIW: Furukawa Electric Co., Ltd., | UL1446 | UL, - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| | | | TEX-E or TEX-ELZ, 130°C Bobbin: SUMITOMO BAKELITE CO LTD, type;PM-9820 (QMFZ2), V-0, 150°C,Insulation tape, DUCK SUNG HITECH CO LTD, Cat No. DTS-200* or DTS-204R or DTS-204R % or DTS-280* or DTS-204K^ | | |
| Main Transformer (T1) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | JEC(B) (Part No.: 3025579003A for 18V, 19V output) | (OBJY2), Class B Insulation System. Core: Ferrite 40 by 42 mm. PRI-SEC Coils: TIW: Furukawa Electric Co., Ltd., TEX-E, 130°C Bobbin: SUMITOMO BAKELITE CO LTD, type;PM-9820 (QMFZ2), V-0, 150°C,Insulation tape, DUCK SUNG HITECH CO LTD, Cat No. DTS-200* or DTS-204R or DTS-204K^ | UL1446 | UL, - |
| Optical Isolator (PSU1) | Vishay Semiconductor Gmbh | TCET1103(G) | Double Protection. Isolation 5000Vac. DTI;0.4mm, External CR,CL minimum 6.3 mm. Complied with 2.10.9 | UL1577, EN60950 | UL, BSI No. 7402 |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| Optical Isolator (PSU1) Alternate | Cosmo Electronics Corp. | KP1010 | Double Protection. Isolation 5000Vac. DTI;0.4mm, External CR,CL minimum 6.5 mm. Complied with 2.10.9 | UL1577, EN60950 | UL, SEMKO No. 1016433 |
| Optical Isolator (PSU1) Alternate | Sharp Corp. | PC123 | Double Protection. Isolation 5000Vac. DTI;0.4mm, External CR,CL;7.62mm Complied with 2.10.9 | UL1577, EN60950 | UL, SEMKO No. 9216212 |
| Optical Isolator (PSU1) Alternate | Kodenshi Corp. | PC-17K or PC-17K1C | Double Protection. Isolation 5000Vac. DTI;0.4mm, External CR,CL minimum 7.0 mm. Complied with 2.10.9 | UL1577, EN60950 | UL, Semko No. 9805214/01-04 |
| Zener Diode (DP3) | Various | Various | 18V, 0.5W | - | -, - |
| Insulator Sheet (Around Transformer (T1) Primary) | Various | Various | One piece. V-0, minimum 125°C. Overall approximately 42 by 42 mm, minimum 0.4 mm thick. | UL94, UL746C | UL, - |
| Heat Sink (HS1) (Primary) | Various | Various | Metal. Overall approximately 128.7 by 36 mm, 2 mm thick. Wound by Polyester Film Tape, (OANZ2), minimum 130°C, minimum three turns in primary side. | - | -, - |
| Heat Sink (HS2) | Various | Various | Metal. Overall | - | -, - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| (Secondary) | | | approximately 69.3 by 36 mm, 3 mm thick. Wound by Polyester Film Tape, (OANZ2), minimum 130°C, minimum three turns in primary side. | | |
| Heat Sink (HS3) (Around BD1)_optional | Various | Various | Metal. Overall approximately 40 by 30 mm, 1.5 mm thick. Wound by Polyester Film Tape, (OANZ2), minimum 130°C, minimum 1 turns in primary side. | - | -, - |
| Silicon Pad (Above T1) | Bergquist | 900-S# | Overall Sized Min. ø 43 by 23 mm , Min.5.0 mm thick, V-0, 150 deg.C. | UL94, UL746C | UL, - |
| Silicon Pad (Above T1) - Alternate | JIANGSU HONGDA NEW MATERIAL CO LTD | HD-87 | Overall Sized Min. ø 43 by 23 mm , Min.5.0 mm thick, V-0, 150 deg.C. | UL94, UL746C | UL, - |
| Silicon Pad (Above PFC1) | Bergquist | 900-S# | Overall Sized Min. ø 25 by 18 mm , Min.5.0 mm thick, * 2EA V-0, 150 | UL94, UL746C | UL, - |
| Silicon Pad (Above PFC1- Alternate | Jiangsu Hongda Chemical New Material | HD-87 | Overall Sized Min. ø 25 by 18 mm , Min.5.0 mm thick, * 2EA V-0, 150 | UL94, UL746C | UL, - |
| Printed Wiring Board (PWB) | Various | Various | Minimum V-1, 130°C. | UL796 | UL, - |
| Protective Bonding | Various | Various | Mechanically clamped or | UL758 | UL, - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| Conductor | | | secured on PWB from Appliance Inlet. Minimum 18 AWG, Green-and-Yellow Insulation. | | |
| Bonding Glue | Various | Various | Minimum V-2, minimum 100°C for additional secureness of Internal Conductor. | UL94, UL746C | UL, - |
| Output Cable | Various | Various | For use of External Interconnection), Style No. 2464 or 1777, VW-1 or FT-1, 18 AWG, maximum 3.05 m long. | UL758 | UL, - |
| Nameplate Label | Various | Various | Suitable for use on surface of Polycarbonate (PC) with max.60°C surface temperature. | UL969 | UL, - |
| Supplementary information:<br>[1]) Provided evidence ensures the agreed level of compliance. See OD-CB2039. | | | | | |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| 2.10.3 and 2.10.4 | **TABLE: clearance and creepage distance measurements** | | | | | Pass |
|---|---|---|---|---|---|---|
| Clearance (cl) and creepage distance (cr) at/of/between: | U peak (V) | U r.m.s. (V) | Required cl (mm) | cl (mm) | Required cr (mm) | cr (mm) |
| Functional: | | | | | | |
| Clearance (cl) and creepage distance (cr) at/of/between: | U peak (V) | U r.m.s. (V) | Required cl (mm) | cl (mm) | Required cr (mm) | cr (mm) |
| Basic/supplementary: | | | | | | |
| Clearance (cl) and creepage distance (cr) at/of/between: | U peak (V) | U r.m.s. (V) | Required cl (mm) | cl (mm) | Required cr (mm) | cr (mm) |
| Reinforced: | | | | | | |
| Clearance (cl) and creepage distance (cr) at/of/between: | U peak (V) | U r.m.s. (V) | Required cl (mm) | cl (mm) | Required cr (mm) | cr (mm) |
| PSU1, primary to secondary | 360 | 176 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU1, primary to secondary | 370 | 186 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin1 / PSU pin3 | 370 | 178 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin1 / PSU pin4 | 370 | 178 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin2 / PSU pin3 | 370 | 178 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin2 / PSU pin4 | 370 | 178 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin1 / PSU pin3 | 375 | 183 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin1 / PSU pin4 | 375 | 183 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin2 / PSU pin3 | 375 | 183 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin2 / PSU pin4 | 375 | 183 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin1 / PSU pin3 | 375 | 183 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin1 / PSU pin4 | 375 | 183 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin2 / PSU pin3 | 375 | 183 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin2 / PSU pin4 | 375 | 183 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin1 / PSU pin3 | 375 | 183 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin1 / PSU pin4 | 375 | 183 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin2 / PSU pin3 | 375 | 183 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin2 / PSU pin4 | 375 | 183 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin1 / PSU pin3 | 365 | 178 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin1 / PSU pin4 | 365 | 177 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin2 / PSU pin3 | 365 | 179 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin2 / PSU pin4 | 365 | 177 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin1 / PSU pin3 | 365 | 178 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin1 / PSU pin4 | 365 | 177 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin2 / PSU pin3 | 365 | 177 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin2 / PSU pin4 | 365 | 178 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin1 / PSU pin3 | 365 | 178 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin1 / PSU pin4 | 365 | 178 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin2 / PSU pin3 | 365 | 178 | 5.92 | 6.3 | 5.92 | 6.3 |
| PSU pin2 / PSU pin4 | 365 | 179 | 5.92 | 6.3 | 5.92 | 6.3 |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| |
|---|
| supplementary information: |

| 5.2 | **TABLE: electric strength tests, impulse tests and voltage surge tests** | | Pass |
|---|---|---|---|
| Test voltage applied between: | Voltage shape (AC, DC, impulse, surge) | Test voltage (V) | Breakdown Yes / No |
| Functional: | | | |
| Test voltage applied between: | Voltage shape (AC, DC, impulse, surge) | Test voltage (V) | Breakdown Yes / No |
| Basic/supplementary: | | | |
| Test voltage applied between: | Voltage shape (AC, DC, impulse, surge) | Test voltage (V) | Breakdown Yes / No |
| Reinforced: | | | |
| Test voltage applied between: | Voltage shape (AC, DC, impulse, surge) | Test voltage (V) | Breakdown Yes / No |
| Optical Isolator(After the last period at T1 degreeC) | AC | 4800Vac | No |
| supplementary information: | | | |

| | Ref. Certif. No. |
|---|---|
| | **DK-28210-UL** |

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

SYSTEME CEI D'ACCEPTATION MUTUELLE DE CERTIFICATS D'ESSAIS DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC

## CB TEST CERTIFICATE CERTIFICAT D'ESSAI OC

| | |
|---|---|
| Product<br>Produit | Switching Power Supply |
| Name and address of the applicant<br>Nom et adresse du demandeur | BRIDGEPOWER CORP<br>964 GOSAEK-DONG GWONSEON-GU<br>SUWON-SI GYEONGGI-DO 441-813 KOREA |
| Name and address of the manufacturer<br>Nom et adresse du fabricant | BRIDGEPOWER CORP<br>964 GOSAEK-DONG GWONSEON-GU<br>SUWON-SI GYEONGGI-DO 441-813 KOREA |
| Name and address of the factory<br>Nom et adresse de l'usine<br>Note: *When more than one factory, please report on page 2*<br>Note: *Lorsque il y plus d'une usine, veuillez utiliser la 2ème page* | BRIDGEPOWER CORP<br>964 GOSAEK-DONG GWONSEON-GU SUWON-SI GYEONGGI-DO 441-813<br>KOREA<br>☒ Additional Information on page 2 |
| Ratings and principal characteristics<br>Valeurs nominales et caractéristiques principales | Input Rating: 100-240 Vac, 50-60 Hz, 2.0 A<br>Output Rating: 12.0 Vdc, 7.5 A or<br>13.0 Vdc, 6.92A or<br>15.0 Vdc, 6.4 A or<br>16.0Vdc, 6.0 A or<br>18.0 Vdc, 5.6 A or<br>19.0 Vdc, 5.2A or<br>24.0 Vdc, 4.2 A |
| Trademark (if any)<br>Marque de fabrique (si elle existe) | None |
| Type of Manufacturer's Testing Laboratories used<br>Type de programme du laboratoire d'essais constructeur | TMP |
| Model / Type Ref.<br>Ref. De type<br>Additional information (if necessary may also be reported on page 2)<br>Les informations complémentaires (si nécessaire,, peuvent être indiqués sur la 2ème page | See Page 2<br>☒ Additional Information on page 2 |
| A sample of the product was tested and found to be in conformity with<br>Un échantillon de ce produit a été essayé et a été considéré conforme à la | IEC 60950-1 (ed.2), IEC 60950-1(ed.2);am1 |
| As shown in the Test Report Ref. No. which forms part of this Certificate<br>Comme indiqué dans le Rapport d'essais numéro de référence qui constitue partie de ce Certificat | E300305-A33-CB-4 issued on 2012-09-24 |

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme **National de Certification**

☐ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

**For full legal entity names see www.ul.com/ncbnames**

Date: 2012-09-24

Signature:

Jan-Erik Storgaard

Ref. Certif. No.

**DK-28210-UL**

Model Details:
JPW1100**12**F**, JPW1100**13**F**, JPW1100**15**F**, JPW1100**16**F**, JPW1100**18**F**, JPW1100**19**F**, JPW1100**24**F**, CENB1100*12**F**, CENB1100*13**F**, CENB1100*15**F**, CENB1100*16**F**, CENB1100*18**F**, CENB1100*19**F**, CENB1100*24**F**, JMW1100**12**F**, JMW1100**13**F**, JMW1100**15**F**, JMW1100**16**F**, JMW1100**18**F**, JMW1100**19**F**, JMW1100**24**F**, MENB1100*12**F**, MENB1100*13**F**, MENB1100*15**F**, MENB1100*16**F**, MENB1100*18**F**, MENB1100*19**F**, and MENB1100*24**F** (Where * may be alphanumeric, "for marketing purpose and no impact safety related critical components and constructions")

Factories:
WENDENG JEIL ELECTRONICS CO LTD
DONG SHOU GUANGZHOU LU KAIFA-QU WENDENG-SHI SHANDONG
CHINA

Additional Information:
Additionally evaluated to EN 60950-1:2006/A11:2009/A1:2010/A12:2011; National Differences specified in the CB Test Report.

**Additional information (if necessary)**
**Information complémentaire (si nécessaire)**

☐ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

**For full legal entity names see www.ul.com/ncbnames**

Date: 2012-09-24

Signature:
Jan-Erik Storgaard

**Test Report issued under the responsibility of:**

# TEST REPORT
# IEC 60950-1
# Information technology equipment - Safety - Part 1: General requirements

| | |
|---|---|
| **Report Reference No** ..... : | E300305-A33-CB-4 |
| Date of issue ..... : | 2012-09-24 |
| Total number of pages ..... : | 83 |
| **CB Testing Laboratory** ..... : | UL Korea, Ltd. |
| Address ..... : | #808, Manhatan Building, 36-2 Yeouido-Dong, Yeongdeungpo-Gu, Seoul 150-749, Korea |
| **Applicant's name** ..... : | BRIDGEPOWER CORP |
| Address ..... : | 964 GOSAEK-DONG<br>GWONSEON-GU<br>SUWON-SI GYEONGGI-DO 441-813 KOREA |
| **Test specification:** | |
| Standard ..... : | IEC 60950-1:2005 (2nd Edition); Am 1:2009 |
| Test procedure ..... : | CB Scheme |
| Non-standard test method ..... : | N/A |
| **Test Report Form No.** ..... : | IEC60950_1B |
| Test Report Form originator ..... : | SGS Fimko Ltd |
| Master TRF ..... : | 2010-04 |

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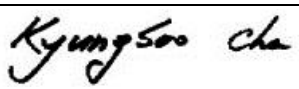
If this test Report is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

**This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.**

| | |
|---|---|
| **Test item description** ..... : | Switching Power Supply |
| Trade Mark ..... : | None |
| Manufacturer ..... : | BRIDGEPOWER CORP<br>964 GOSAEK-DONG<br>GWONSEON-GU<br>SUWON-SI GYEONGGI-DO 441-813 KOREA |
| Model/Type reference ..... : | JPW1100**12**F**, JPW1100**13**F**, JPW1100**15**F**, JPW1100**16**F**, JPW1100**18**F**, JPW1100**19**F**, JPW1100**24**F**, CENB1100*12**F**, CENB1100*13**F**, CENB1100*15**F**, CENB1100*16**F**, CENB1100*18**F**, CENB1100*19**F**, CENB1100*24**F**, JMW1100**12**F**, JMW1100**13**F**, JMW1100**15**F**, JMW1100**16**F**, JMW1100**18**F**, JMW1100**19**F**, JMW1100**24**F**, MENB1100*12**F**, MENB1100*13**F**, MENB1100*15**F**, MENB1100*16**F**, MENB1100*18**F**, MENB1100*19**F**, and MENB1100*24**F** (Where * may be alphanumeric, "for marketing purpose and no impact safety related critical components and constructions") |
| Ratings ..... : | Input Rating: 100-240 Vac, 50-60 Hz, 2.0 A<br>Output Rating: 12.0 Vdc, 7.5 A or<br>13.0 Vdc, 6.92A or<br>15.0 Vdc, 6.4 A or<br>16.0Vdc, 6.0 A or<br>18.0 Vdc, 5.6 A or<br>19.0 Vdc, 5.2A or<br>24.0 Vdc, 4.2 A |

| **Testing procedure and testing location:** | | | |
|---|---|---|---|
| [ ] | **CB Testing Laboratory** | | |
| | Testing location / address..... : | | |
| [ ] | **Associated CB Test Laboratory** | | |
| | Testing location / address..... : | | |
| | Tested by (name + signature) ..... : | | |
| | Approved by (name + signature) ... : | | |
| [x] | **Testing Procedure: TMP** | | |
| | Tested by (name + signature) ..... : | InYoung Hwang | |
| | Approved by (+ signature) ..... : | KyungSoo Cha |  |
| | Testing location / address..... : | BRIDGEPOWER CORP / 964 GOSAEK-DONG GWONSEON-GU SUWON-SI GYEONGGI-DO 441-813 KOREA | |
| [ ] | **Testing Procedure: WMT** | | |
| | Tested by (name + signature) ..... : | | |
| | Witnessed by (+ signature)..... : | | |
| | Approved by (+ signature) ..... : | | |
| | Testing location / address..... : | | |
| [ ] | **Testing Procedure: SMT** | | |
| | Tested by (name + signature) ..... : | | |
| | Approved by (+ signature) ..... : | | |
| | Supervised by (+ signature) ..... : | | |
| | Testing location / address..... : | | |
| [ ] | **Testing Procedure: RMT** | | |
| | Tested by (name + signature) ..... : | | |
| | Approved by (+ signature) ..... : | | |
| | Supervised by (+ signature) ..... : | | |
| | Testing location / address..... : | | |

**List of Attachments**

National Differences (41 pages)

Enclosures (42 pages)

**Summary Of Testing**

Unless otherwise indicated, all tests were conducted at BRIDGEPOWER CORP / 964 GOSAEK-DONG GWONSEON-GU SUWON-SI GYEONGGI-DO 441-813 KOREA.

| | **Tests performed (name of test and test clause)** | **Testing location / Comments** |
|---|---|---|
| | End Product Reference Page | |

General Guidelines

Power Supply Reference Page

Humidity (2.9.1, 2.9.2, 5.2.2)

Semiconductor Devices and Cemented Joints (2.10.11, 2.10.9)

Heating (4.5.1, 1.4.12, 1.4.13)

**Summary of Compliance with National Differences:**

Countries outside the CB Scheme membership may also accept this report.

List of countries addressed: AT, BE, CA, CH, CN, CZ, DE, DK, ES, EU, FI, FR, GB, GR, HU, IE, IL, IT, JP, KR, NL, NO, PL, PT, SE, SG, SI, SK, US

The product fulfills the requirements of: N/A

**Copy of Marking Plate** - Refer to Enclosure titled Marking Plate for copy.

| | |
|---|---|
| **Test item particulars :** | |
| Equipment mobility ..... : | movable |
| Connection to the mains ..... : | pluggable A |
| Operating condition ..... : | continuous |
| Access location ..... : | N/A |
| Over voltage category (OVC) ..... : | OVC II |
| Mains supply tolerance (%) or absolute mains supply values ..... : | +10%, -10% |
| Tested for IT power systems ..... : | Yes(for Norway only) |
| IT testing, phase-phase voltage (V) ..... : | 230 Vac |
| Class of equipment ..... : | Class I (earthed) |
| Considered current rating of protective device as part of the building installation (A) ..... : | 2.0 |
| Pollution degree (PD) ..... : | PD 2 |
| IP protection class ..... : | IP X0 |
| Altitude of operation (m) ..... : | up to 5000m |
| Altitude of test laboratory (m) ..... : | N/A |
| Mass of equipment (kg) ..... : | 0.7 |
| **Possible test case verdicts:** | |
| - test case does not apply to the test object ..... : | N / A |
| - test object does meet the requirement ..... : | P(Pass) |
| - test object does not meet the requirement ..... : | F(Fail) |
| **Testing:** | |
| Date(s) of receipt of test item ..... : | 2012-07-05 |
| Date(s) of Performance of tests ..... : | 2012-07-05 to 2012-09-07 |
| **General remarks:** | |
| The test results presented in this report relate only to the object tested.<br>This report shall not be reproduced, except in full, without the written approval of the testing laboratory.<br><br>"(see Enclosure #)" refers to additional information appended to the report.<br>"(see appended table)" refers to a table appended to the report.<br><br>Throughout this report a point is used as the decimal separator. | |
| **Manufacturer's Declaration per Sub Clause 6.25 of IECEE 02:**<br>The application for obtaining a CB Test Certificate includes more than one factory and a declaration form the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided .....<br><br>When differences exist, they shall be identified in the General Product Information section. | Yes |
| **Name and address of Factory(ies):** | BRIDGEPOWER CORP |

964 GOSAEK-DONG
GWONSEON-GU
SUWON-SI GYEONGGI-DO 441-813 KOREA

WENDENG JEIL ELECTRONICS CO LTD
DONG SHOU GUANGZHOU LU
KAIFA-QU
WENDENG-SHI SHANDONG CHINA

**GENERAL PRODUCT INFORMATION:**

**Report Summary**

All applicable tests according to the referenced standard(s) have been carried out.

**Product Description**

Switching Power Supply (AC/DC adapter), consists of electronic components mounted on PWB, a switching transformer and electronic components mounted on PWB, housed with a plastic enclosure.

**Model Differences**

JPW1100**12**F**, JPW1100**15**F**, JPW1100**18**F**, JPW1100**19**F**, JPW1100**24**F**, CENB1100*12**F**, CENB1100*15**F**, CENB1100*18**F**, CENB1100*19**F**, CENB1100*24**F**, JMW1100**12**F**, JMW1100**15**F**, JMW1100**18**F**, JMW1100**19**F**, JMW1100**24**F**, MENB1100*12**F**, MENB1100*15**F**, MENB1100*18**F**, MENB1100*19**F**, and MENB1100*24**F** (Where * may be alphanumeric, "for marketing purpose and no impact safety related critical components and constructions")

Models CENB1100*(b)**(c)**(d)F**(e), MENB1100*(b)**(c)**(d)F**(e), and JMW1100*(a)*(b)**(c)**(d)F**(e) are identical to JPW1100*(a)*(b)**(c)**(d)F**(e), except model designations as follows;

Nomenclature

JPW1100*(a)*(b)**(c)**(d)F**(e) or JMW1100*(a)*(b)**(c)**(d)F**(e) or CENB1100*(b)**(c)**(d)F**(e) or MENB1100*(b)**(c)**(d)F**(e)
(a) means custom options, may be K or C;
(b) means design revision changes, may be A to Z;
(c) means output voltages, may be 12, 13, 15, 16, 18,19 or 24;
(d) means standards output cord options, may be 00 to 99;
(e) means custom options, may be 00 to 99 or AA to ZZ.

The marked models as 12, 13, 15, 16, 18, 19 and 24 on (c) nomenclature are identical individually, except model designations, output ratings, transformers and secondary circuits.

The Models JPW1100**13**F**, JPW1100**16**F**, CENB1100*13**F**,CENB1100*16**F**, JMW1100**13**F**, JMW1100**16**F**, MENB1100*13**F**, and MENB1100*16**F** are identical to Model JPW1100**12**F** except for model designation, output ratings, transformers and secondary circuits.

The model JPW1100**19**F**, CENB1100*19**F**, JMW1100**19**F**, MENB1100*19**F** are identical to JPW1100**12**F** except for model designation, output ratings, transformers and secondary circuits.

**Additional Information**

Maximum Normal Load Condition: Rated Output Currents
JPW1100KA1200F01: 12.0 Vdc, 7.5 A;
JPW1100KA1500F01: 15.0 Vdc, 6.4 A;
JPW1100KA1800F01: 18.0 Vdc, 5.6 A;
JPW1100KA2400F01: 24.0 Vdc, 4.2 A.

This equipment is not provided with user's manual.

Procedure Deviation:
Argentina*, Australia / New Zealand, Austria**, Belgium**, China, Czech Republic**, Denmark, Finland, France**, Germany, Greece**, Group, Hungary*, India*, Ireland*, Israel*, Italy*, Japan*, Kenya*, Korea, Malaysia*, Netherlands**, Norway, Poland*, Portugal*, Singapore*, Slovakia**, Slovenia*, Spain*, Sweden, Switzerland**, and United Kingdom.
* - No National Differences Declared, ** - Only Group Differences.

Before placing the products in the different countries, the manufacturer has to guarantee that:
1. Operating instructions and warnings are written in an accepted language of the certain country.
2. The equipment is in compliance with the national standards of the certain country.

E300305-A33-CB-3, Reissue
- Added Thermal Fuse (Seki Controls Co., Ltd., Type ST-22) in critical component list.

E300305-A33-CB-4, Reissue
- Upgrade report from IEC 60950-1 2nd edition to IEC 60950-1 2nd edition, Amendment1
- Altitude of operation is up to 2000m to up to 5000m refer to IEC 60664-1 table A.2
- Humidity test was conducted at 40 degreeC, 95% , 120hours for China Deviation.
- National Difference for China is revised.
- Tma is changed from 30 degreeC to 35 degreeC

**Technical Considerations**

- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer’s specification of: 35
- The means of connection to the mains supply is: Pluggable A, Detachable Power Supply Cord,
- The product is intended for use on the following power systems: TN and IT (for Norway only),
- The equipment disconnect device is considered to be: Appliance Inlet
- The product was investigated to the following additional standards: EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 (which includes all European national differences, including those specified in this test report).

Abbreviations used in the report:

| | | | |
|---|---|---|---|
| - normal condition | N.C. | - single fault condition | S.F.C |
| - operational insulation | OP | - basic insulation | BI |
| - basic insulation between parts of opposite polarity: | BOP | - supplementary insulation | SI |
| - double insulation | DI | - reinforced insulation | RI |

Indicate used abbreviations (if any)

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 1 | **GENERAL** | | Pass |
| 1.5 | Components | | Pass |
| 1.5.1 | General | | Pass |
| | Comply with IEC 60950-1 or relevant component standard | | Pass |
| 1.5.2 | Evaluation and testing of components | Components certified to IEC harmonized standard and checked for correct application.<br>Components, for which no relevant IEC-Standard exist, have been tested under the conditions occurring in the equipment, using applicable parts of IEC 60950-1.<br>Components not certified are used in accordance with their ratings and they comply with applicable parts of IEC 60950-1 and the relevant component Standard. | Pass |
| 1.5.3 | Thermal controls | | N/A |
| 1.5.4 | Transformers | (see Annex C) | Pass |
| 1.5.5 | Interconnecting cables | Interconnecting cables comply with the relevant requirements of this standard. | Pass |
| 1.5.6 | Capacitors bridging insulation | Between lines; X1 or X2 capacitor according to IEC 60384-14;1993. Between Primary-to-secondary capacitors: Y1 capacitor; Primary-to-earth capacitors: Y1 or Y2 according to IEC 60384-14:1993. | Pass |
| 1.5.7 | Resistors bridging insulation | | Pass |
| 1.5.7.1 | Resistors bridging functional, basic or supplementary insulation | | Pass |
| 1.5.7.2 | Resistors bridging double or reinforced insulation between a.c. mains and other circuits | | N/A |
| 1.5.7.3 | Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable | | N/A |
| 1.5.8 | Components in equipment for IT power systems | | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 1.5.9 | Surge suppressors | | Pass |
| 1.5.9.1 | General | | Pass |
| 1.5.9.2 | Protection of VDRs | IEC 61051 and UL 1449 certified VDR used(See appended table 1.5.1) | Pass |
| 1.5.9.3 | Bridging of functional insulation by a VDR | IEC 61051 and UL 1449 certified VDR used(See appended table 1.5.1) | Pass |
| 1.5.9.4 | Bridging of basic insulation by a VDR | | N/A |
| 1.5.9.5 | Bridging of supplementary, double or reinforced insulation by a VDR | | N/A |
| 1.6 | **Power interface** | | Pass |
| 1.6.1 | AC power distribution systems | AC power distribution systems are classified as TN.<br>In Norway, IT systems apply. | Pass |
| 1.6.2 | Input current | (see appended table 1.6.2) | Pass |
| 1.6.3 | Voltage limit of hand-held equipment | | N/A |
| 1.6.4 | Neutral conductor | Neutral is insulated from earth with basic insulation for Class I equipment. | Pass |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | |
|---|---|---|---|
| 1.7 | **Marking and instructions** | | Pass |
| 1.7.1 | Power rating and identification markings | | Pass |
| 1.7.1.1 | Power rating mark | | Pass |
| | Multiple mains supply connections ..... : | | N/A |
| | Rated voltage(s) or voltage range(s) (V) ..... : | 100-240 Vac | Pass |
| | Symbol for nature of supply, for d.c. only ..... : | | N/A |
| | Rated frequency or rated frequency range (Hz) .... : | 50-60 Hz | Pass |
| | Rated current (mA or A) ..... : | 2.0 A | Pass |
| 1.7.1.2 | Identification markings | | Pass |
| | Manufacturer's name or trademark or identification mark..... : | BRIDGEPOWER CORP | Pass |
| | Model identification or type reference ..... : | JPW1100**12**F**,<br>JPW1100**13**F**,<br>JPW1100**15**F**,<br>JPW1100**16**F**,<br>JPW1100**18**F**,<br>JPW1100**19**F**,<br>JPW1100**24**F**,<br>CENB1100*12**F**,<br>CENB1100*13**F**,<br>CENB1100*15**F**,<br>CENB1100*16**F**,<br>CENB1100*18**F**,<br>CENB1100*19**F**,<br>CENB1100*24**F**,<br>JMW1100**12**F**,<br>JMW1100**13**F**,<br>JMW1100**15**F**,<br>JMW1100**16**F**,<br>JMW1100**18**F**,<br>JMW1100**19**F**,<br>JMW1100**24**F**,<br>MENB1100*12**F**,<br>MENB1100*13**F**,<br>MENB1100*15**F**,<br>MENB1100*16**F**,<br>MENB1100*18**F**,<br>MENB1100*19**F**,<br>MENB1100*24**F** | Pass |
| | Symbol for Class II equipment only ..... : | | N/A |
| | Other markings and symbols..... : | Additional symbols or marking does not give rise to misunderstanding. | Pass |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 1.7.2 | Safety instructions and marking | | Pass |
| 1.7.2.1 | General | | Pass |
| 1.7.2.2 | Disconnect devices | | Pass |
| 1.7.2.3 | Overcurrent protective device | | Pass |
| 1.7.2.4 | IT Power distribution systems | For Norway Only | Pass |
| 1.7.2.5 | Operator access with a tool | | N/A |
| 1.7.2.6 | Ozone | | N/A |
| 1.7.3 | Short duty cycles | Equipment is designed for continuous operation. | N/A |
| 1.7.4 | Supply voltage adjustment ..... : | Equipment is auto-ranging. | N/A |
| | Method and means of adjustment; reference to installation instructions ..... : | | N/A |
| 1.7.5 | Power outlets on the equipment..... : | No standard power outlets are provided. | N/A |
| 1.7.6 | Fuse identification (marking, special fusing characteristics, cross-reference) ..... : | Fuses, F1(optional), F2 provided with an unambiguous cross-reference | Pass |
| 1.7.7 | Wiring terminals | | Pass |
| 1.7.7.1 | Protective earthing and bonding terminals ..... : | The earth terminal is marked with the standard earth symbol (60417-2-IEC-5019) near the terminal for Class I equipment. | Pass |
| 1.7.7.2 | Terminals for a.c. mains supply conductors | The equipment with appliance inlet, which is intended to use the detachable type power supply cord. | N/A |
| 1.7.7.3 | Terminals for d.c. mains supply conductors | | N/A |
| 1.7.8 | Controls and indicators | | N/A |
| 1.7.8.1 | Identification, location and marking ..... : | | N/A |
| 1.7.8.2 | Colours ..... : | | N/A |
| 1.7.8.3 | Symbols according to IEC 60417 ..... : | | N/A |
| 1.7.8.4 | Markings using figures..... : | | N/A |
| 1.7.9 | Isolation of multiple power sources ..... : | | N/A |
| 1.7.10 | Thermostats and other regulating devices ..... : | - | Pass |
| 1.7.11 | Durability | All markings provided suitable for surface they are applied upon. | Pass |
| 1.7.12 | Removable parts | No removable part. | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 1.7.13 | Replaceable batteries ..... : | No batteries provided. | N/A |
| | Language(s) ..... : | | - |
| 1.7.14 | Equipment for restricted access locations ..... : | The equipment is not intended for installation in a Restricted Access Area. | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | |
|---|---|---|---|
| 2 | **PROTECTION FROM HAZARDS** | | Pass |
| 2.1 | Protection from electric shock and energy hazards | | Pass |
| 2.1.1 | Protection in operator access areas | | Pass |
| 2.1.1.1 | Access to energized parts | | Pass |
| | Test by inspection..... : | No access with test finger and test pin to any parts with only basic insulation to ELV or hazardous voltage. Any hazardous parts accessible are unlikely. | Pass |
| | Test with test finger (Figure 2A) ..... : | The test finger was unable to contact bare hazardous parts, basic insulation, or ELV circuits. | Pass |
| | Test with test pin (Figure 2B)..... : | The test pin was unable to contact bare hazardous parts. | Pass |
| | Test with test probe (Figure 2C)..... : | No TNV present. | N/A |
| 2.1.1.2 | Battery compartments | | N/A |
| 2.1.1.3 | Access to ELV wiring | | N/A |
| | Working voltage (Vpeak or Vrms); minimum distance through insulation (mm) ..... : | | - |
| 2.1.1.4 | Access to hazardous voltage circuit wiring | | N/A |
| 2.1.1.5 | Energy hazards ..... : | No energy hazard in operator area. | Pass |
| 2.1.1.6 | Manual controls | | N/A |
| 2.1.1.7 | Discharge of capacitors in equipment | | Pass |
| | Measured voltage (V); time-constant (s) ..... : | RC: less than 1; Vo 384 Vpk, 37 % Vo 140 Vpk, Vtc 48 Vpk after 1 sec.<br><br><11CA15702><br>RC: less than 1; Vo 375 Vpk, 37 % Vo 138.75 Vpk, Vtc 32 Vpk after 1 sec.<br><br><E300305-A33-CB-2, Amendment3, 11CA37964><br>RC: less than 1; Vo 375 Vpk, 37 % Vo 138.75 Vpk, Vtc 32 Vpk after 1 sec. | - |
| 2.1.1.8 | Energy hazards - d.c. mains supply | | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | a) Capacitor connected to the d.c. mains supply .. : | | N/A |
| | b) Internal battery connected to the mains supply : | | N/A |
| 2.1.1.9 | Audio amplifiers ..... : | | N/A |
| 2.1.2 | Protection in service access areas | | N/A |
| 2.1.3 | Protection in restricted access locations | | N/A |
| 2.2 | **SELV circuits** | | Pass |
| 2.2.1 | General requirements | | Pass |
| 2.2.2 | Voltages under normal conditions (V) ..... : | All accessible voltages are less than 42.4 Vpk or 60 V dc and are classified as SELV. | Pass |
| 2.2.3 | Voltages under fault conditions (V) ..... : | Under fault conditions voltages never exceed 71V peak and 120Vdc and do not exceed 42.4V peak or 60V dc for more than 0.2 sec.(see appended table 5.3) | Pass |
| 2.2.4 | Connection of SELV circuits to other circuits ..... : | SELV circuits are only connected to other secondary circuits. SELV circuit and all interconnected circuits separated from primary by reinforced insulation. The SELV circuit does not exceed the SELV limits under normal and fault conditions. | Pass |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | |
|---|---|---|---|
| 2.3 | **TNV circuits** | | N/A |
| 2.3.1 | Limits | | N/A |
| | Type of TNV circuits ..... : | - | - |
| 2.3.2 | Separation from other circuits and from accessible parts | | N/A |
| 2.3.2.1 | General requirements | | N/A |
| 2.3.2.2 | Protection by basic insulation | | N/A |
| 2.3.2.3 | Protection by earthing | | N/A |
| 2.3.2.4 | Protection by other constructions ..... : | | N/A |
| 2.3.3 | Separation from hazardous voltages | | N/A |
| | Insulation employed..... : | - | - |
| 2.3.4 | Connection of TNV circuits to other circuits | | N/A |
| | Insulation employed..... : | - | - |
| 2.3.5 | Test for operating voltages generated externally | | N/A |

| | | | |
|---|---|---|---|
| 2.4 | **Limited current circuits** | | Pass |
| 2.4.1 | General requirements | Annex D meter method | Pass |
| 2.4.2 | Limit values | 0.5 mArms (0.7 mA pk) | Pass |
| | Frequency (Hz) ..... : | - | - |
| | Measured current (mA)..... : | 0.01 mArms(Normal);<br>0.02 mArms(CY3 short) | - |
| | Measured voltage (V) ..... : | Less than 450 Vpk | - |
| | Measured circuit capacitance (nF or uF)..... : | Less than 0.1 uF | - |
| 2.4.3 | Connection of limited current circuits to other circuits | The LIMITED CURRENT CIRCUIT connected to other circuits complies with the requirements of Sub-clause 2.4.1. Limited current circuit meets the limits of 2.4.2 under normal conditions and under single component or insulation faults in interconnected circuits. | Pass |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | |
|---|---|---|---|
| 2.5 | **Limited power sources** | | N/A |
| | a) Inherently limited output | | N/A |
| | b) Impedance limited output | | N/A |
| | c) Regulating network limited output under normal operating and single fault condition | | N/A |
| | d) Overcurrent protective device limited output | | N/A |
| | Max. output voltage (V), max. output current (A), max. apparent power (VA)..... : | | - |
| | Current rating of overcurrent protective device (A) : | | - |
| | Use of integrated circuit (IC) current limiters ..... : | | - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 2.6 | **Provisions for earthing and bonding** | | Pass |
| 2.6.1 | Protective earthing | | Pass |
| 2.6.2 | Functional earthing | | N/A |
| 2.6.3 | Protective earthing and protective bonding conductors | | Pass |
| 2.6.3.1 | General | | Pass |
| 2.6.3.2 | Size of protective earthing conductors | Appliance Inlet used. | Pass |
| | Rated current (A), cross-sectional area (mm²), AWG ..... : | 2.0 A, 0.75 mm2, 18 AWG | - |
| 2.6.3.3 | Size of protective bonding conductors | | N/A |
| | Rated current (A), cross-sectional area (mm²), AWG ..... : | | - |
| | Protective current rating (A), cross-sectional area (mm²), AWG..... : | | - |
| 2.6.3.4 | Resistance of earthing conductors and their terminations; resistance (ohm), voltage drop (V), test current (A), duration (min) ..... : | 0.062 ohm, 2.46 Vdrop (Appliance GND Pin to secondary output cable metal part), 40 A, 2 minute. | Pass |
| 2.6.3.5 | Colour of insulation..... : | Protective bonding conductor is green with yellow stripe. | Pass |
| 2.6.4 | Terminals | | Pass |
| 2.6.4.1 | General | | Pass |
| 2.6.4.2 | Protective earthing and bonding terminals | Terminals resist accidental loosening of the conductor. | Pass |
| | Rated current (A), type, nominal thread diameter (mm) ..... : | Appliance Inlet used. | - |
| 2.6.4.3 | Separation of the protective earthing conductor from protective bonding conductors | Unit employs an appliance inlet. | N/A |
| 2.6.5 | Integrity of protective earthing | | Pass |
| 2.6.5.1 | Interconnection of equipment | | N/A |
| 2.6.5.2 | Components in protective earthing conductors and protective bonding conductors | No switches or fuses in earthing conductors. | N/A |
| 2.6.5.3 | Disconnection of protective earth | Disconnection of the protective earth at one assembly removes connection of HAZARDOUS VOLTAGES from the other assemblies at the same time for Class I equipment) | Pass |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 2.6.5.4 | Parts that can be removed by an operator | It is not possible to disconnect earth without disconnecting mains. | Pass |
| 2.6.5.5 | Parts removed during servicing | Connections to protective earthing cannot be removed unless hazardous voltage is removed from the part simultaneously. | Pass |
| 2.6.5.6 | Corrosion resistance | | Pass |
| 2.6.5.7 | Screws for protective bonding | | N/A |
| 2.6.5.8 | Reliance on telecommunication network or cable distribution system | | N/A |
| 2.7 | **Overcurrent and earth fault protection in primary circuits** | | Pass |
| 2.7.1 | Basic requirements | | Pass |
| | Instructions when protection relies on building installation | | N/A |
| 2.7.2 | Faults not covered in 5.3.7 | | N/A |
| 2.7.3 | Short-circuit backup protection | | Pass |
| 2.7.4 | Number and location of protective devices ..... : | One protective device in the "LIVE" phase(F2) , Neutral phase fuse F1is optional. | Pass |
| 2.7.5 | Protection by several devices | | N/A |
| 2.7.6 | Warning to service personnel..... : | Not for servicing | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 2.8 | **Safety interlocks** | | N/A |
| 2.8.1 | General principles | | N/A |
| 2.8.2 | Protection requirements | | N/A |
| 2.8.3 | Inadvertent reactivation | | N/A |
| 2.8.4 | Fail-safe operation | | N/A |
| | Protection against extreme hazard | | N/A |
| 2.8.5 | Moving parts | | N/A |
| 2.8.6 | Overriding | | N/A |
| 2.8.7 | Switches, relays and their related circuits | | N/A |
| 2.8.7.1 | Separation distances for contact gaps and their related circuits (mm) ..... : | | N/A |
| 2.8.7.2 | Overload test | | N/A |
| 2.8.7.3 | Endurance test | | N/A |
| 2.8.7.4 | Electric strength test | | N/A |
| 2.8.8 | Mechanical actuators | | N/A |
| 2.9 | **Electrical insulation** | | Pass |
| 2.9.1 | Properties of insulating materials | Natural rubber, asbestos or hygroscopic material is not used. | Pass |
| 2.9.2 | Humidity conditioning | | Pass |
| | Relative humidity (%), temperature (°C)..... : | 95%, 40degreeC , 120hours | - |
| 2.9.3 | Grade of insulation | Insulation materials comply with sub-clauses 2.10, 4.5.1 and 5.2. | Pass |
| 2.9.4 | Separation from hazardous voltages | | N/A |
| | Method(s) used..... : | | - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 2.10 | **Clearances, creepage distances and distances through insulation** | | Pass |
| 2.10.1 | General | | Pass |
| 2.10.1.1 | Frequency..... : | Less than 30kHz | Pass |
| 2.10.1.2 | Pollution degrees..... : | 2 | Pass |
| 2.10.1.3 | Reduced values for functional insulation | See 5.3.4 | Pass |
| 2.10.1.4 | Intervening unconnected conductive parts | | N/A |
| 2.10.1.5 | Insulation with varying dimensions | | N/A |
| 2.10.1.6 | Special separation requirements | | N/A |
| 2.10.1.7 | Insulation in circuits generating starting pulses | | N/A |
| 2.10.2 | Determination of working voltage | Unit was connected to a 240V TN power system. | Pass |
| 2.10.2.1 | General | | Pass |
| 2.10.2.2 | RMS working voltage | | Pass |
| 2.10.2.3 | Peak working voltage | | Pass |
| 2.10.3 | Clearances | | Pass |
| 2.10.3.1 | General | | Pass |
| 2.10.3.2 | Mains transient voltages | Overvoltage Category II; Mains transient voltage is 2500Vpk | Pass |
| | a) AC mains supply ..... : | Less than 300Vrms | Pass |
| | b) Earthed d.c. mains supplies ..... : | | N/A |
| | c) Unearthed d.c. mains supplies ..... : | | N/A |
| | d) Battery operation ..... : | | N/A |
| 2.10.3.3 | Clearances in primary circuits | (see appended table 2.10.3 and 2.10.4) | Pass |
| 2.10.3.4 | Clearances in secondary circuits | Functional insulation only.(see sub-clause 5.3.4) | Pass |
| 2.10.3.5 | Clearances in circuits having starting pulses | | N/A |
| 2.10.3.6 | Transients from a.c. mains supply..... : | See clause 2.10.3.2 | Pass |
| 2.10.3.7 | Transients from d.c. mains supply..... : | | N/A |
| 2.10.3.8 | Transients from telecommunication networks and cable distribution systems ..... : | | N/A |
| 2.10.3.9 | Measurement of transient voltage levels | | N/A |
| | a) Transients from a mains supply | | N/A |
| | For an a.c. mains supply ..... : | | N/A |
| | For a d.c. mains supply ..... : | | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | b) Transients from a telecommunication network | | N/A |
| 2.10.4 | Creepage distances | (see appended table 2.10.3 and 2.10.4) | Pass |
| 2.10.4.1 | General | | Pass |
| 2.10.4.2 | Material group and comparative tracking index | | Pass |
| | CTI tests ..... : | Material group IIIb; 100 <=CTI <175. | - |
| 2.10.4.3 | Minimum creepage distances | | Pass |
| 2.10.5 | Solid insulation | Solid or laminated insulating materials having adequate thickness are provided and approved optical isolator provided. | Pass |
| 2.10.5.1 | General | | Pass |
| 2.10.5.2 | Distances through insulation | (see appended table 2.10.5) | Pass |
| 2.10.5.3 | Insulating compound as solid insulation | Certified optical isolator used(See appended table 1.5.1) | Pass |
| 2.10.5.4 | Semiconductor devices | Optical isolator complied with a) | Pass |
| 2.10.5.5 | Cemented joints | Certified optical isolator used(See appended table 1.5.1) | Pass |
| 2.10.5.6 | Thin sheet material - General | Two layers used, each of which complies with the required electric strength test. | Pass |
| 2.10.5.7 | Separable thin sheet material | | Pass |
| | Number of layers (pcs) ..... : | 2 layers | - |
| 2.10.5.8 | Non-separable thin sheet material | | N/A |
| 2.10.5.9 | Thin sheet material - standard test procedure | | N/A |
| | Electric strength test ..... : | | - |
| 2.10.5.10 | Thin sheet material - alternative test procedure | | Pass |
| | Electric strength test ..... : | 2 layers | - |
| 2.10.5.11 | Insulation in wound components | | Pass |
| 2.10.5.12 | Wire in wound components | The employed UL Recognized wiring meets the requirements of 2.10.5.4 and Annex U. | Pass |
| | Working voltage ..... : | Certified triple insulated wire used secondary of transformer | Pass |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | a) Basic insulation not under stress ..... : | | N/A |
| | b) Basic, supplementary, reinforced insulation..... : | Supplementary or Reinforced | Pass |
| | c) Compliance with Annex U ..... : | - | Pass |
| | Two wires in contact inside wound component; angle between 45° and 90° ..... : | Physical separation in the form of insulating sheet material to relieve mechanical stress at the crossover point. | Pass |
| 2.10.5.13 | Wire with solvent-based enamel in wound components | | N/A |
| | Electric strength test ..... : | | - |
| | Routine test | | N/A |
| 2.10.5.14 | Additional insulation in wound components | | N/A |
| | Working voltage ..... : | | N/A |
| | - Basic insulation not under stress ..... : | | N/A |
| | - Supplementary, reinforced insulation ..... : | | N/A |
| 2.10.6 | Construction of printed boards | | Pass |
| 2.10.6.1 | Uncoated printed boards | | Pass |
| 2.10.6.2 | Coated printed boards | | N/A |
| 2.10.6.3 | Insulation between conductors on the same inner surface of a printed board | | N/A |
| 2.10.6.4 | Insulation between conductors on different layers of a printed board | | N/A |
| | Distance through insulation | | Pass |
| | Number of insulation layers (pcs) ..... : | | N/A |
| 2.10.7 | Component external terminations | | N/A |
| 2.10.8 | Tests on coated printed boards and coated components | | N/A |
| 2.10.8.1 | Sample preparation and preliminary inspection | | N/A |
| 2.10.8.2 | Thermal conditioning | | N/A |
| 2.10.8.3 | Electric strength test | | N/A |
| 2.10.8.4 | Abrasion resistance test | | N/A |
| 2.10.9 | Thermal cycling | Test for optical isolator ; T1 ; 109degreeC(T1 was depenced on the measured T2), Period ; 32 days | Pass |
| 2.10.10 | Test for Pollution Degree 1 environment and insulating compound | | Pass |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 2.10.11 | Tests for semiconductor devices and cemented joints | Test voltage for optical isolator ; 4800Vrms(3000 Vrms * 1.6) after the last period T1 degreeC and after the 5 days humidity conditioning of 2.9.2 | Pass |
| 2.10.12 | Enclosed and sealed parts | | N/A |
| 3 | **WIRING, CONNECTIONS AND SUPPLY** | | Pass |
| 3.1 | General | | Pass |
| 3.1.1 | Current rating and overcurrent protection | | N/A |
| 3.1.2 | Protection against mechanical damage | Wires do not touch sharp edges and heatsink which could damage the insulation and cause hazard. | Pass |
| 3.1.3 | Securing of internal wiring | | Pass |
| 3.1.4 | Insulation of conductors | The insulation of the individual conductors are suitable for the application and the working voltage. | Pass |
| 3.1.5 | Beads and ceramic insulators | | N/A |
| 3.1.6 | Screws for electrical contact pressure | | N/A |
| 3.1.7 | Insulating materials in electrical connections | | N/A |
| 3.1.8 | Self-tapping and spaced thread screws | | N/A |
| 3.1.9 | Termination of conductors | All conductors are reliably secured. | Pass |
| | 10 N pull test | | Pass |
| 3.1.10 | Sleeving on wiring | | Pass |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 3.2 | **Connection to mains supply** | | Pass |
| 3.2.1 | Means of connection | The unit is provided with an appliance inlet. | Pass |
| 3.2.1.1 | Connection to an a.c. mains supply | | Pass |
| 3.2.1.2 | Connection to a d.c. mains supply | | N/A |
| 3.2.2 | Multiple supply connections | | N/A |
| 3.2.3 | Permanently connected equipment | | N/A |
| | Number of conductors, diameter of cable and conduits (mm) ..... : | | - |
| 3.2.4 | Appliance inlets | The appliance inlet complies with IEC 60320 and UL498. | Pass |
| 3.2.5 | Power supply cords | | N/A |
| 3.2.5.1 | AC power supply cords | | N/A |
| | Type ..... : | | - |
| | Rated current (A), cross-sectional area ($mm^2$), AWG ..... : | | - |
| 3.2.5.2 | DC power supply cords | | N/A |
| 3.2.6 | Cord anchorages and strain relief | | N/A |
| | Mass of equipment (kg), pull (N) ..... : | | - |
| | Longitudinal displacement (mm) ..... : | | - |
| 3.2.7 | Protection against mechanical damage | | N/A |
| 3.2.8 | Cord guards | | N/A |
| | Diameter of minor dimension D (mm); test mass (g) ..... : | | - |
| | Radius of curvature of cord (mm) ..... : | | - |
| 3.2.9 | Supply wiring space | | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 3.3 | **Wiring terminals for connection of external conductors** | | N/A |
| 3.3.1 | Wiring terminals | | N/A |
| 3.3.2 | Connection of non-detachable power supply cords | | N/A |
| 3.3.3 | Screw terminals | | N/A |
| 3.3.4 | Conductor sizes to be connected | | N/A |
| | Rated current (A), cord/cable type, cross-sectional area (mm²) ..... : | | - |
| 3.3.5 | Wiring terminal sizes | | N/A |
| | Rated current (A), type and nominal thread diameter (mm) ..... : | | - |
| 3.3.6 | Wiring terminals design | | N/A |
| 3.3.7 | Grouping of wiring terminals | | N/A |
| 3.3.8 | Stranded wire | | N/A |
| 3.4 | **Disconnection from the mains supply** | | Pass |
| 3.4.1 | General requirement | | Pass |
| 3.4.2 | Disconnect devices | The equipment is provided with an appliance coupler. | Pass |
| 3.4.3 | Permanently connected equipment | | N/A |
| 3.4.4 | Parts which remain energized | No parts remain energized when the disconnect device is removed. | Pass |
| 3.4.5 | Switches in flexible cords | | N/A |
| 3.4.6 | Number of poles - single-phase and d.c. equipment | Disconnect device disconnects all poles simultaneously. | Pass |
| 3.4.7 | Number of poles - three-phase equipment | | N/A |
| 3.4.8 | Switches as disconnect devices | | N/A |
| 3.4.9 | Plugs as disconnect devices | | N/A |
| 3.4.10 | Interconnected equipment | | N/A |
| 3.4.11 | Multiple power sources | | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 3.5 | **Interconnection of equipment** | | Pass |
| 3.5.1 | General requirements | | Pass |
| 3.5.2 | Types of interconnection circuits ..... : | Interconnection circuits are SELV CIRCUITS. | Pass |
| 3.5.3 | ELV circuits as interconnection circuits | | N/A |
| 3.5.4 | Data ports for additional equipment | | N/A |
| 4 | **PHYSICAL REQUIREMENTS** | | Pass |
| 4.1 | Stability | | N/A |
| | Angle of 10° | | N/A |
| | Test force (N)..... : | | N/A |
| 4.2 | **Mechanical strength** | | Pass |
| 4.2.1 | General | | Pass |
| | Rack-mounted equipment | | N/A |
| 4.2.2 | Steady force test, 10 N | | Pass |
| 4.2.3 | Steady force test, 30 N | | N/A |
| 4.2.4 | Steady force test, 250 N | | Pass |
| 4.2.5 | Impact test | | Pass |
| | Fall test | | Pass |
| | Swing test | | N/A |
| 4.2.6 | Drop test; height (mm)..... : | | N/A |
| 4.2.7 | Stress relief test | No indication of shrinkage or distortion on enclosures due to the stress relief test 90 degree C/7 h. | Pass |
| 4.2.8 | Cathode ray tubes | | N/A |
| | Picture tube separately certified ..... : | | N/A |
| 4.2.9 | High pressure lamps | | N/A |
| 4.2.10 | Wall or ceiling mounted equipment; force (N) ..... : | | N/A |
| 4.2.11 | Rotating solid media | | N/A |
| | Test to cover on the door..... : | | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 4.3 | **Design and construction** | | Pass |
| 4.3.1 | Edges and corners | | Pass |
| 4.3.2 | Handles and manual controls; force (N) ..... : | | N/A |
| 4.3.3 | Adjustable controls | | N/A |
| 4.3.4 | Securing of parts | No loosening of parts impairing creepage distances or clearances over supplementary or reinforced insulation is likely to occur. | Pass |
| 4.3.5 | Connection by plugs and sockets | The equipment does not have any interchangeable plugs/sockets. | N/A |
| 4.3.6 | Direct plug-in equipment | | N/A |
| | Torque ..... : | | N/A |
| | Compliance with the relevant mains plug standard: | | N/A |
| 4.3.7 | Heating elements in earthed equipment | | N/A |
| 4.3.8 | Batteries | | N/A |
| | - Overcharging of a rechargeable battery | | N/A |
| | - Unintentional charging of a non-rechargeable battery | | N/A |
| | - Reverse charging of a rechargeable battery | | N/A |
| | - Excessive discharging rate for any battery | | N/A |
| 4.3.9 | Oil and grease | | N/A |
| 4.3.10 | Dust, powders, liquids and gases | | N/A |
| 4.3.11 | Containers for liquids or gases | | N/A |
| 4.3.12 | Flammable liquids..... : | | N/A |
| | Quantity of liquid (l)..... : | | N/A |
| | Flash point (°C)..... : | | N/A |
| 4.3.13 | Radiation | | N/A |
| 4.3.13.1 | General | | N/A |
| 4.3.13.2 | Ionizing radiation | | N/A |
| | Measured radiation (pA/kg) ..... : | | - |
| | Measured high-voltage (kV) ..... : | | - |
| | Measured focus voltage (kV)..... : | | - |
| | CRT markings..... : | | - |
| 4.3.13.3 | Effect of ultraviolet (UV) radiation on materials | | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | Part, property, retention after test, flammability classification ..... : | | N/A |
| 4.3.13.4 | Human exposure to ultraviolet (UV) radiation ..... : | | N/A |
| 4.3.13.5 | Lasers (including laser diodes) and LEDs | | N/A |
| 4.3.13.5.1 | Lasers (including laser diodes) | | N/A |
| | Laser class ..... : | | - |
| 4.3.13.5.2 | Light emitting diodes (LEDs) | | N/A |
| 4.3.13.6 | Other types ..... : | | N/A |
| 4.4 | **Protection against hazardous moving parts** | | N/A |
| 4.4.1 | General | | N/A |
| 4.4.2 | Protection in operator access areas ..... : | | N/A |
| | Household and home/office document/media shredders | | N/A |
| 4.4.3 | Protection in restricted access locations ..... : | | N/A |
| 4.4.4 | Protection in service access areas | | N/A |
| 4.4.5 | Protection against moving fan blades | | N/A |
| 4.4.5.1 | General | | N/A |
| | Not considered to cause pain or injury. a) ..... : | | N/A |
| | Is considered to cause pain, not injury. b) ..... : | | N/A |
| | Considered to cause injury. c) ..... : | | N/A |
| 4.4.5.2 | Protection for users | | N/A |
| | Use of symbol or warning ..... : | | N/A |
| 4.4.5.3 | Protection for service persons | | N/A |
| | Use of symbol or warning ..... : | | N/A |
| 4.5 | **Thermal requirements** | | Pass |
| 4.5.1 | General | | Pass |
| 4.5.2 | Temperature tests | (see appended table 4.5) | Pass |
| | Normal load condition per Annex L ..... : | Rated output current | - |
| 4.5.3 | Temperature limits for materials | | Pass |
| 4.5.4 | Touch temperature limits | | Pass |
| 4.5.5 | Resistance to abnormal heat ..... : | | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 4.6 | **Openings in enclosures** | | Pass |
| 4.6.1 | Top and side openings | | Pass |
| | Dimensions (mm) ..... : | No openings | - |
| 4.6.2 | Bottoms of fire enclosures | | Pass |
| | Construction of the bottom, dimensions (mm)..... : | No openings. | - |
| 4.6.3 | Doors or covers in fire enclosures | | N/A |
| 4.6.4 | Openings in transportable equipment | | N/A |
| 4.6.4.1 | Constructional design measures | | N/A |
| | Dimensions (mm) ..... : | | - |
| 4.6.4.2 | Evaluation measures for larger openings | | N/A |
| 4.6.4.3 | Use of metallized parts | | N/A |
| 4.6.5 | Adhesives for constructional purposes | | N/A |
| | Conditioning temperature (°C), time (weeks) ..... : | | - |
| 4.7 | **Resistance to fire** | | Pass |
| 4.7.1 | Reducing the risk of ignition and spread of flame | Method 1 used. | Pass |
| | Method 1, selection and application of components wiring and materials | (see appended table 4.7) | Pass |
| | Method 2, application of all of simulated fault condition tests | | N/A |
| 4.7.2 | Conditions for a fire enclosure | | Pass |
| 4.7.2.1 | Parts requiring a fire enclosure | | Pass |
| 4.7.2.2 | Parts not requiring a fire enclosure | | N/A |
| 4.7.3 | Materials | | Pass |
| 4.7.3.1 | General | | Pass |
| 4.7.3.2 | Materials for fire enclosures | Equipment is movable with mass less than 18 kg. Fire enclosure material is V-1 minimum. | Pass |
| 4.7.3.3 | Materials for components and other parts outside fire enclosures | Fire enclosure covers all parts. | N/A |
| 4.7.3.4 | Materials for components and other parts inside fire enclosures | Materials are minimum V-2 | Pass |
| 4.7.3.5 | Materials for air filter assemblies | | N/A |
| 4.7.3.6 | Materials used in high-voltage components | | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 5 | **ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS** | | Pass |
| 5.1 | Touch current and protective conductor current | | Pass |
| 5.1.1 | General | Measured between mains and output connector | Pass |
| 5.1.2 | Configuration of equipment under test (EUT) | EUT has only one mains connection. | Pass |
| 5.1.2.1 | Single connection to an a.c. mains supply | | Pass |
| 5.1.2.2 | Redundant multiple connections to an a.c. mains supply | | N/A |
| 5.1.2.3 | Simultaneous multiple connections to an a.c. mains supply | | N/A |
| 5.1.3 | Test circuit | | Pass |
| 5.1.4 | Application of measuring instrument | Tested using D.1 measuring instrument. | Pass |
| 5.1.5 | Test procedure | | Pass |
| 5.1.6 | Test measurements | | Pass |
| | Supply voltage (V) ..... : | 264 V, 60 Hz | - |
| | Measured touch current (mA)..... : | 0.230 mAr.m.s. at Secondary GND, 0.085 mAr.m.s. at Secondary Circuit without GND | - |
| | Max. allowed touch current (mA)..... : | 3.5 mAr.m.s. at Secondary GND, 0.25 mAr.m.s. at Secondary Circuit without GND | - |
| | Measured protective conductor current (mA)..... : | . | - |
| | Max. allowed protective conductor current (mA)... : | . | - |
| 5.1.7 | Equipment with touch current exceeding 3,5 mA | | N/A |
| 5.1.7.1 | General..... : | | N/A |
| 5.1.7.2 | Simultaneous multiple connections to the supply | | N/A |
| 5.1.8 | Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks | | N/A |
| 5.1.8.1 | Limitation of the touch current to a telecommunication network or to a cable distribution system | | N/A |
| | Supply voltage (V) ..... : | | - |
| | Measured touch current (mA)..... : | | - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | Max. allowed touch current (mA)..... : | | - |
| 5.1.8.2 | Summation of touch currents from telecommunication networks | | N/A |
| | a) EUT with earthed telecommunication ports ..... : | | N/A |
| | b) EUT whose telecommunication ports have no reference to protective earth | | N/A |
| 5.2 | **Electric strength** | | Pass |
| 5.2.1 | General | (see appended table 5.2) | Pass |
| 5.2.2 | Test procedure | | Pass |
| 5.3 | **Abnormal operating and fault conditions** | | Pass |
| 5.3.1 | Protection against overload and abnormal operation | | Pass |
| 5.3.2 | Motors | | N/A |
| 5.3.3 | Transformers | (see appended Annex C) | Pass |
| 5.3.4 | Functional insulation..... : | Functional insulation complies with the requirements (a), (b), or (c). | Pass |
| 5.3.5 | Electromechanical components | | N/A |
| 5.3.6 | Audio amplifiers in ITE..... : | | N/A |
| 5.3.7 | Simulation of faults | | Pass |
| 5.3.8 | Unattended equipment | | N/A |
| 5.3.9 | Compliance criteria for abnormal operating and fault conditions | No fire, emission of molten metal or deformation was noted during the tests. Electric Strength tests performed after abnormal and fault tests. | Pass |
| 5.3.9.1 | During the tests | | Pass |
| 5.3.9.2 | After the tests | | Pass |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 6 | **CONNECTION TO TELECOMMUNICATION NETWORKS** | | N/A |
| 6.1 | Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment | | N/A |
| 6.1.1 | Protection from hazardous voltages | | N/A |
| 6.1.2 | Separation of the telecommunication network from earth | | N/A |
| 6.1.2.1 | Requirements | | N/A |
| | Supply voltage (V) ..... : | | - |
| | Current in the test circuit (mA)..... : | | - |
| 6.1.2.2 | Exclusions..... : | | N/A |
| 6.2 | **Protection of equipment users from overvoltages on telecommunication networks** | | N/A |
| 6.2.1 | Separation requirements | | N/A |
| 6.2.2 | Electric strength test procedure | | N/A |
| 6.2.2.1 | Impulse test | | N/A |
| 6.2.2.2 | Steady-state test | | N/A |
| 6.2.2.3 | Compliance criteria | | N/A |
| 6.3 | **Protection of the telecommunication wiring system from overheating** | | N/A |
| | Max. output current (A)..... : | | - |
| | Current limiting method ..... : | | - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | |
|---|---|---|---|
| 7 | **CONNECTION TO CABLE DISTRIBUTION SYSTEMS** | | N/A |
| 7.1 | General | | N/A |
| 7.2 | Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment | | N/A |
| 7.3 | Protection of equipment users from overvoltages on the cable distribution system | | N/A |
| 7.4 | Insulation between primary circuits and cable distribution systems | | N/A |
| 7.4.1 | General | | N/A |
| 7.4.2 | Voltage surge test | | N/A |
| 7.4.3 | Impulse test | | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| A | **ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE** | | N/A |
| A.1 | Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2) | | N/A |
| A.1.1 | Samples ..... : | | - |
| | Wall thickness (mm) ..... : | | - |
| A.1.2 | Conditioning of samples; temperature (°C) ..... : | | N/A |
| A.1.3 | Mounting of samples ..... : | | N/A |
| A.1.4 | Test flame (see IEC 60695-11-3) | | N/A |
| | Flame A, B, C or D ..... : | | N/A |
| A.1.5 | Test procedure | | N/A |
| A.1.6 | Compliance criteria | | N/A |
| | Sample 1 burning time (s) ..... : | | - |
| | Sample 2 burning time (s) ..... : | | - |
| | Sample 3 burning time (s) ..... : | | - |
| A.2 | Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4) | | N/A |
| A.2.1 | Samples, material ..... : | | - |
| | Wall thickness (mm) ..... : | | - |
| A.2.2 | Conditioning of samples; temperature (°C) ..... : | | N/A |
| A.2.3 | Mounting of samples ..... : | | N/A |
| A.2.4 | Test flame (see IEC 60695-11-4) | | N/A |
| | Flame A, B or C ..... : | | - |
| A.2.5 | Test procedure | | N/A |
| A.2.6 | Compliance criteria | | N/A |
| | Sample 1 burning time (s) ..... : | | - |
| | Sample 2 burning time (s) ..... : | | - |
| | Sample 3 burning time (s) ..... : | | - |
| A.2.7 | Alternative test acc. to IEC 60695-11-5, cl. 5 and 9 | | N/A |
| | Sample 1 burning time (s) ..... : | | - |
| | Sample 2 burning time (s) ..... : | | - |
| | Sample 3 burning time (s) ..... : | | - |
| A.3 | Hot flaming oil test (see 4.6.2) | | N/A |
| A.3.1 | Mounting of samples | | N/A |
| A.3.2 | Test procedure | | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| A.3.3 | Compliance criterion | | N/A |
| B | **ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)** | | N/A |
| B.1 | General requirements | | N/A |
| | Position ..... : | | - |
| | Manufacturer ..... : | | - |
| | Type ..... : | | - |
| | Rated values ..... : | | - |
| B.2 | Test conditions | | N/A |
| B.3 | Maximum temperatures | | N/A |
| B.4 | Running overload test | | N/A |
| B.5 | Locked-rotor overload test | | N/A |
| | Test duration (days) ..... : | | - |
| | Electric strength test: test voltage (V) ..... : | | - |
| B.6 | Running overload test for d.c. motors in secondary circuits | | N/A |
| B.6.1 | General | | N/A |
| B.6.2 | Test procedure | | N/A |
| B.6.3 | Alternative test procedure | | N/A |
| B.6.4 | Electric strength test; test voltage (V) ..... : | | N/A |
| B.7 | Locked-rotor overload test for d.c. motors in secondary circuits | | N/A |
| B.7.1 | General | | N/A |
| B.7.2 | Test procedure | | N/A |
| B.7.3 | Alternative test procedure | | N/A |
| B.7.4 | Electric strength test; test voltage (V) ..... : | | N/A |
| B.8 | Test for motors with capacitors | | N/A |
| B.9 | Test for three-phase motors | | N/A |
| B.10 | Test for series motors | | N/A |
| | Operating voltage (V) ..... : | - | - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| C | **ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)** | | Pass |
| | Position ..... : | (see appended table 1.5.1) | - |
| | Manufacturer ..... : | (see appended table 1.5.1) | - |
| | Type ..... : | (see appended table 1.5.1) | - |
| | Rated values ..... : | Class B | - |
| | Method of protection ..... : | Inherently protection | - |
| C.1 | Overload test | (see appended table 5.3) | Pass |
| C.2 | Insulation | (see appended table 5.2) | Pass |
| | Protection from displacement of windings ..... : | min. 3 mm margin tape provided on primary circuits and used triple insulated winding wire at primary circuit. | Pass |
| D | **ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)** | | Pass |
| D.1 | Measuring instrument | MD box used | Pass |
| D.2 | Alternative measuring instrument | | N/A |
| E | **ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)** | | N/A |
| F | **ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)** | | Pass |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | |
|---|---|---|---|
| G | **ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES** | | N/A |
| G.1 | Clearances | | N/A |
| G.1.1 | General | | N/A |
| G.1.2 | Summary of the procedure for determining minimum clearances | | N/A |
| G.2 | Determination of mains transient voltage (V) | | N/A |
| G.2.1 | AC mains supply ..... : | | N/A |
| G.2.2 | Earthed d.c. mains supply ..... : | | N/A |
| G.2.3 | Unearthed d.c. mains supply ..... : | | N/A |
| G.2.4 | Battery operation ..... : | | N/A |
| G.3 | Determination of telecommunication network transient voltage (V) : ..... : | | N/A |
| G.4 | Determination of required withstand voltage (V) | | N/A |
| G.4.1 | Mains transients and internal repetitive peaks ..... : | | N/A |
| G.4.2 | Transients from telecommunication networks ..... : | | N/A |
| G.4.3 | Combination of transients | | N/A |
| G.4.4 | Transients from cable distribution systems | | N/A |
| G.5 | Measurement of transient voltages (V) | | N/A |
| | a) Transients from a mains supply | | N/A |
| | For an a.c. mains supply | | N/A |
| | For a d.c. mains supply | | N/A |
| | b) Transients from a telecommunication network | | N/A |
| G.6 | Determination of minimum clearances ..... : | | N/A |

| | | | |
|---|---|---|---|
| H | **ANNEX H, IONIZING RADIATION (see 4.3.13)** | | N/A |

| | | | |
|---|---|---|---|
| J | **ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)** | | Pass |
| | Metal(s) used ..... : | - | - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | |
|---|---|---|---|
| K | **ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)** | | N/A |
| K.1 | Making and breaking capacity | | N/A |
| K.2 | Thermostat reliability; operating voltage (V) ..... : | | N/A |
| K.3 | Thermostat endurance test; operating voltage (V) : | | N/A |
| K.4 | Temperature limiter endurance; operating voltage (V) ..... : | | N/A |
| K.5 | Thermal cut-out reliability | | N/A |
| K.6 | Stability of operation | | N/A |

| | | | |
|---|---|---|---|
| L | **ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)** | | Pass |
| L.1 | Typewriters | | N/A |
| L.2 | Adding machines and cash registers | | N/A |
| L.3 | Erasers | | N/A |
| L.4 | Pencil sharpeners | | N/A |
| L.5 | Duplicators and copy machines | | N/A |
| L.6 | Motor-operated files | | N/A |
| L.7 | Other business equipment | AC/DC adapter, Rated output current | Pass |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| M | **ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)** | | N/A |
| M.1 | Introduction | | N/A |
| M.2 | Method A | | N/A |
| M.3 | Method B | | N/A |
| M.3.1 | Ringing signal | | N/A |
| M.3.1.1 | Frequency (Hz) ..... : | | - |
| M.3.1.2 | Voltage (V) ..... : | | - |
| M.3.1.3 | Cadence; time (s), voltage (V) ..... : | | - |
| M.3.1.4 | Single fault current (mA) ..... : | | - |
| M.3.2 | Tripping device and monitoring voltage ..... : | | N/A |
| M.3.2.1 | Conditions for use of a tripping device or a monitoring voltage | | N/A |
| M.3.2.2 | Tripping device | | N/A |
| M.3.2.3 | Monitoring voltage (V) ..... : | | N/A |
| N | **ANNEX N, IMPULSE TEST GENERATORS (see 1.5.7.2, 1.5.7.3, 2.10.3.9, 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)** | | N/A |
| N.1 | ITU-T impulse test generators | | N/A |
| N.2 | IEC 60065 impulse test generator | | N/A |
| P | **ANNEX P, NORMATIVE REFERENCES** | | Pass |
| Q | **ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)** | | Pass |
| | a) Preferred climatic categories ..... : | IEC 61051-2 certified VDR used(See appended table 1.5.1) | Pass |
| | b) Maximum continuous voltage ..... : | Component rating is at least 120 % of the rated voltage of the equipment | Pass |
| | c) Pulse current ..... : | IEC 610512 certified VDR used(See appended table 1.5.1) | Pass |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | |
|---|---|---|---|
| R | **ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES** | | N/A |
| R.1 | Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2) | | N/A |
| R.2 | Reduced clearances (see 2.10.3) | | N/A |

| | | | |
|---|---|---|---|
| S | **ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)** | | N/A |
| S.1 | Test equipment | | N/A |
| S.2 | Test procedure | | N/A |
| S.3 | Examples of waveforms during impulse testing | | N/A |

| | | | |
|---|---|---|---|
| T | **ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)** | | N/A |
| | ..... : | | - |

| | | | |
|---|---|---|---|
| U | **ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)** | | Pass |
| | ..... : | Approved TIWW used. | - |

| | | | |
|---|---|---|---|
| V | **ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)** | | N/A |
| V.1 | Introduction | | N/A |
| V.2 | TN power distribution systems | | N/A |

| | | | |
|---|---|---|---|
| W | **ANNEX W, SUMMATION OF TOUCH CURRENTS** | | N/A |
| W.1 | Touch current from electronic circuits | | N/A |
| W.1.1 | Floating circuits | | N/A |
| W.1.2 | Earthed circuits | | N/A |
| W.2 | Interconnection of several equipments | | N/A |
| W.2.1 | Isolation | | N/A |
| W.2.2 | Common return, isolated from earth | | N/A |
| W.2.3 | Common return, connected to protective earth | | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| X | **ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)** | | Pass |
| X.1 | Determination of maximum input current | | N/A |
| X.2 | Overload test procedure | | N/A |
| Y | **ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)** | | N/A |
| Y.1 | Test apparatus..... : | | N/A |
| Y.2 | Mounting of test samples..... : | | N/A |
| Y.3 | Carbon-arc light-exposure apparatus..... : | | N/A |
| Y.4 | Xenon-arc light-exposure apparatus ..... : | | N/A |
| Z | **ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)** | | Pass |
| AA | **ANNEX AA, MANDREL TEST (see 2.10.5.8)** | | N/A |
| BB | **ANNEX BB, CHANGES IN THE SECOND EDITION** | | Pass |
| CC | **ANNEX CC, EVALUATION OF INTEGRATED CIRCUIT (IC) CURRENT LIMITERS** | | N/A |
| CC.1 | General | | N/A |
| CC.2 | Test program 1 ..... : | | N/A |
| CC.3 | Test program 2 ..... : | | N/A |
| DD | **ANNEX DD, REQUIREMENTS FOR THE MOUNTING MEANS OF RACK-MOUNTED EQUIPMENT** | | N/A |
| DD.1 | General | | N/A |
| DD.2 | Mechanical strength test, variable N ..... : | | N/A |
| DD.3 | Mechanical strength test, 250 N, including end stops ..... : | | N/A |
| DD.4 | Compliance..... : | | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | |
|---|---|---|---|
| EE | **ANNEX EE, HOUSEHOLD AND HOME/OFFICE DOCUMENT/MEDIA SHREDDERS** | | N/A |
| EE.1 | General | | N/A |
| EE.2 | Markings and instructions | | N/A |
| | Use of markings or symbols ..... : | | N/A |
| | Information of user instructions, maintenance and/or servicing instructions ..... : | | N/A |
| EE.3 | Inadvertent reactivation test ..... : | | N/A |
| EE.4 | Disconnection of power to hazardous moving parts | | N/A |
| | Use of markings or symbols ..... : | | N/A |
| EE.5 | Protection against hazardous moving parts ..... : | | N/A |
| | Test with test finger (Figure 2A) | | N/A |
| | Test with wedge probe (Figure EE1 and EE2) ..... : | | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| 1.5.1 | **TABLE: list of critical components** | | | | Pass |
|---|---|---|---|---|---|
| object/part or Description | manufacturer/ trademark | type/model | technical data | standard (Edition or year) | mark(s) of conformity[1]) |
| Enclosure (Electrical/Mechical/Fire) | Sabic Innovative Plastics B V, Sabic Innovative Plastics Japan L L C or Sabic Innovative Plastics US L L C | 940(f1) | V-0 Overall approximately 149.8 by 86.6 by 51.0 mm, minimum 2.0 mm thick. Composed of two pieces, secured together by screws. | UL94, UL746C | USR, - |
| Enclosure (Electrical/Mechanical/Fire) Alternate | Cheil Industries Inc. Chemicals Div. | HN-1064W(+) | V-0 Overall approximately 149.8 by 86.6 by 51.0 mm, minimum 2.0 mm thick. Composed of two pieces, secured together by screws. | UL94, UL746C | USR, - |
| Enclosure(Electrical/Mechanical/Fire) Alternate | Cheil Industries Inc. Chemicals Div. | HN-1064(+) | V-0 Overall approximately 149.8 by 86.6 by 51.0 mm, minimum 2.0 mm thick. Composed of two pieces, secured together by screws. | UL94, UL746C | USR, - |
| Appliance Inlet | Rong Feng Industrial Co., Ltd. | SS-120-PCB | Minimum 10A, 250V. | UL498, IEC60320 | USR, SEMKO |
| Appliance Inlet Alternate | Rich Bay Co., Ltd. | R-30190 | Minimum 10A, 250V. | UL498, IEC60320 | USR, VDE |
| Fuse (F1) (Optional) | Littelfuse Wickmann-Werke GmbH | 392 | 250V, 3.15A | UL248, VDE0820, EN60127 | USR, VDE |
| Fuse (F1) (Optional) Alternate | Save Fusetech Inc. | SS-5 | 250V, 3.15A | UL248, VDE0820, EN60127 | USR, VDE |
| Thermal Fuse (F1) (Optional) Alternate | Seki Controls Co., Ltd. | ST-22 | 250V, 7A | EN60730-1, VDE0631-1 | USR, VDE |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| Fuse (F2) | Littelfuse Wickmann-Werke GmbH | 392 | 250V, 3.15A | UL248, VDE0820, EN60127 | USR, VDE |
| Fuse (F2) Alternate | Save Fusetech Inc. | SS-5 | 250V, 3.15A | UL248, VDE0820, EN60127 | USR, VDE |
| Thermister (TH1) | Various | Various | NTC, 5ohm at 25°C. | Tested in equipment. | -, - |
| Discharging Resistors (RP111, RP112) | Various | Various | 510Kohm 1/8W | Tested in equipment. | -, - |
| Varistor (TNR1) Optional | Amotech Co., Ltd. | INR14D471 | (Line to Line) Minimum 470V Overall 14 mm. | UL1449, IEC60384-14 | USR, VDE |
| Varistor (TNR1) Optional) Alternate | Success Electronics Co., Ltd. | SVR14D471K | (Line to Line) Minimum 470V Overall 14 mm. | UL1449, IEC60384-14 | USR, VDE |
| X-Capacitor (CX1) | Carli Electronics Co., Ltd. | MPX | (Line to Line) 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC60384-14. | UL1414, IEC384-14, EN132400 | USR, FIMKO NEMKO SEMKO |
| X-Capacitor (CX1) Alternate | Iskra Mis D D | KNB 1530 or 1562 or 1563 | (Line to Line) 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC60384-14. | UL1414, IEC384-14, EN132400 | USR, FIMKO, VDE |
| X-Capacitor (CX1) Alternate | Pilkor Electronics Co., Ltd. | PCX2 335M or PCX2 337 | (Line to Line) 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC60384-14. | UL1414, IEC384-14, EN132400 | USR, DEMKO FIMKO |
| X-Capacitor (CX1) Alternate | Okaya Electric Industries Co., Ltd. | LE | (Line to Line) 250V, maximum .0.47uF. Marked with X1 or X2. Meets IEC60384-14. | UL1414, IEC384-14, EN132400 | USR, SEMKO |
| X-Capacitor (CX1) Alternate | Sun Il Electronics Industry Co., Ltd. | 436D | (Line to Line) 250V, maximum .0.47uF. Marked with X1 or X2. Meets IEC60384-14. | UL1414, IEC384-14, EN132400 | USR, FIMKO |
| Line Filter (LF1) | Bridgepower | 3025560 | Core: Ferrite. 24 | Tested in | -, - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| | Corp. or Wendeng Jeil Electronics Co., Ltd. | | by 24 mm. Coils: Polyurethane Wire, minimum 130°C Bobbin: (QMFZ2), Momentive Specialty Chemicals GmhH, Type PF2736, V-0, 150°C. | equipment. | |
| Line Filter (LP1, LP2, LP4, LP5) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | 6872250 | Core: Ferrite 13.7 by 8 mm. Coils: Polyurethane Wire, minimum 130°C Insulation Tubing/Sleeving: FEP, PTFE, PVC, TFE, Neoprene, Polyimide or VW-1; 130°C. | Tested in equipment. | -, - |
| PFC Coil for 12V, 18V, 24V output | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | Part No.: 3025578 | Core: Ferrite 26 by 25 mm Coils: Polyurethane Wire, minimum 130°C Bobbin: (QMFZ2), Hexian Specialty Chemicals Inc., Type PM9820@, V-0, 150°C. | Tested in equipment. | -, - |
| PFC Coil for 15V output | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | Part No.: 3025578001 | Core: Ferrite 26 by 25 mm Coils: Polyurethane Wire, minimum 130°C Bobbin: (QMFZ2), Hexian Specialty Chemicals Inc., Type PM9820@, V-0, 150°C. | Tested in equipment. | -, - |
| Y-Capacitors (CY1, CY2) | Success Electronics Co., Ltd. | SE or SB | (Line to Ground) 250V, maximum 2200pF. Marked with Y1 or Y2. Meets | UL1414, IEC60384-14, EN132400 | USR, FIMKO |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| | | | IEC60384-14. | | |
| Y-Capacitors (CY1, CY2) - Alternate | Murata Mfg. Co., Ltd. | KX or KY | (Line to Ground) 250V, maximum 2200pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | USR, FIMKO |
| Y-Capacitors (CY1, CY2) - Alternate | TDK-EPC Corp. | CD or CS | (Line to Ground) 250V, maximum 2200pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | USR, VDE |
| Bridge Diode (BD1) | Various | Various | Minimum 600V, maximum 10A. | Tested in equipment. | -, - |
| Bridging Capacitors (CY3, CY4) | Success Electronics Co., Ltd. | SE or SB | (Primary to Secondary) 250V, maximum 1500pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | USR, FIMKO |
| Bridging Capacitors (CY3, CY4) Alternate | Murata Mfg. Co., Ltd. | KX or KY | (Primary to Secondary) 250V, maximum 1500pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | USR, FIMKO |
| Bridging Capacitors (CY3, CY4) Alternate | TDK-EPC Corp. | CD or CS | (Primary to Secondary) 250V, maximum 1500pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | USR, VDE |
| Electrolytic Capacitor (CP1) | Various | Various | Minimum 400V, maximum 150uF, minimum 105°C. | Tested in equipment. | -, - |
| FET (QP1) | Various | Various | 550V, 18A Secured to Heat Sink (HS1) by screw. | Tested in equipment. | -, - |
| FET (QP2) | Various | Various | SMD type. 60V, 115mA | Tested in equipment. | -, - |
| FET (QP3) | Various | Various | 800V, 11A or 13A Secured to | Tested in equipment. | -, - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| | | | Heat Sink (HS1) by screw. | | |
| Switching IC (UP1) | Various | Various | Maximum 22V, 0.03A. | Tested in equipment. | -, - |
| Switching IC (UP2) | Various | Various | Maximum 18V, 5.0mA. | Tested in equipment. | -, - |
| Main Transformer (T1) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | JEC(B) (Part No.: 3025579011 for 12V output; Part No.: 3025579012 for 15V output; Part No.: 3025579013 for 18V output; Part No.: 3025579014 for 24V output) | Class B. Core: Ferrite 40 by 42 mm. Coils: Polyurethane Wire, minimum 130°C TIWW: Furukawa Electric Co., Ltd., TEX-E, 130°C Bobbin: (QMFZ2), V-0, 150°C. | UL1446 | USR, - |
| Optical Isolator (PSU1) | Vishay Semiconductor GmbH | TCET1103(G) | Double Protection. Isolation 5000Vac. External dcr . minimum 8.0 mm. Complied with 2.10.9 | UL1577, EN60950 | USR, VDE |
| Optical Isolator (PSU1) Alternate | Cosmo Electronics Corp. | KP1010 | Double Protection. Isolation 5000Vac. External dcr minimum 8.0 mm.Complied with 2.10.9 | UL1577, EN60950 | USR, VDE |
| Optical Isolator (PSU1) Alternate | Sharp Corp. | PC123 | Double Protection. Isolation 5000Vac. External dcr minimum 6.4mm. .Complied with 2.10.9 | UL1577, EN60950 | USR, VDE |
| Optical Isolator (PSU1) Alternate | Kodenshi Corp. | PC-17K or PC-17K1C | Double Protection. Isolation 5000Vac. | UL1577 | USR, SEMKO |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| | | | External dcr minimum 8.0 mm.Complied with 2.10.9 | | |
| Zener Diodes (DP14, ZD3, DP6) | Various | Various | 18V, 0.5W | Tested in equipment. | -, - |
| Insulation Sheet (Around T1 Primary) | Various | Various | One piece. V-0, minimum 125°C. Overall approximately 42 by 42 mm, minimum 0.4 mm thick. | UL94, UL746 | USR, - |
| Heat Sink (HS1) (Primary) | Various | Various | Metal. Overall approximately. 128.7 by 36 mm, 2 mm thick. Wound by Polyester Film Tape, (OANZ2), minimum 130°C, minimum three turns in primary side. | Tested in equipment. | -, - |
| Heat Sink (HS2) (Secondary) | Various | Various | Metal. Overall approximately. 69.3 by 36 mm, 3 mm thick. Wound by Polyester Film Tape, (OANZ2), minimum 130°C, minimum three turns in primary side. | Tested in equipment. | -, - |
| Heat Sink (HS3) (Around BD1)_optional | Various | Various | Metal. Overall approximately 40 by 30 mm, 1.5 mm thick. Wound by Polyester Film Tape, (OANZ2), minimum 130°C, minimum 1 turns in primary side. | | -, - |
| Printed Wiring Board (PWB) | Various | Various | Minimum V-1, 130°C. | UL796 | USR, - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| Protective Bonding Conductor | Various | Various | Mechanically clamped or secured on PWB from Appliance Inlet. Minimum 18 AWG, Green-and-Yellow Insulation. | UL758 | USR, - |
| Bonding Glue | Various | Various | Minimum V-2, minimum 100°C for additional secureness of Internal Conductor. | UL94, UL746 | USR, - |
| Output Cable | Various | Various | For use of External Interconnection), Style No. 2464 or 1777, VW-1 or FT-1, minimum 300V, 80°C, 18 AWG, maximum 3.05 m long. | UL758 | USR, - |
| Nameplate Label | Various | Various | Suitable for use on surface of Polycarbonate (PC) with maximum 60°C surface temperature. | UL969 | USR, - |
| For Models JPW1100*B12**F**,JPW1100*B13**F**,JPW1100*B15**F**,JPW1100*B16**F**, JPW1100*B18**F**, JPW1100*B19**F**, JPW1100*B24**F**,CENB1100A12**F**,CENB1100A13**F**,CENB1100A15**F**, CENB1100A16**F**, CENB1100A18** | - | - | - | - | -, - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| F**, CENB1100A19**F**, CENB1100A24**F**, JMW1100*B12**F**,JMW1100*B13**F**,JMW1100*B15**F**,JMW1100*B16**F**, JMW1100*B18**F**, JMW1100*B19**F**, JMW1100*B24**F**,MENB1100A12**F**,MENB1100A13**F**,MENB1100A15**F**, MENB1100A16**F**, MENB1100A18**F**, MENB1100A19**F**, MENB1100A24**F** | | | | | |
| Enclosure (Electrical/Mechanical/Fire) | Sabic Innovative Plastics B V, Sabic Innovative Plastics Japan L L C or Sabic Innovative Plastics US L L C | 940(f1) | V-0 Overall approximately 149.8 by 86.6 by 51.0 mm, minimum 2.0 mm thick. Composed of two pieces. Secured together by screws. | UL94, UL746C | UL, - |
| Enclosure (Electrical/Mechical/Fire) Alternate | Cheil Industries Inc. Chemicals Div. | HN-1064W(+) | V-0 Overall approximately 149.8 by 86.6 by 51.0 mm, minimum 2.0 mm thick. Composed of two pieces. Secured together by screws. | UL94, UL746C | UL, - |
| Enclosure | Cheil Industries | HN-1064(+) | V-0 Overall | UL94, UL746C | UL, - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| (Electrical/Mechanical/Fire) Alternate | Inc. Chemicals Div. | | approximately 149.8 by 86.6 by 51.0 mm, minimum 2.0 mm thick. Composed of two pieces. Secured together by screws. | | |
| Appliance Inlet | Rong Feng Industrial Co., Ltd. | SS-120-PCB | Minimum 10A, 250V. | UL498, IEC60320 | UL, SEMKO |
| Appliance Inlet Alternate | Rich Bay Industrial Co., Ltd. | R-30190 | Minimum 10A, 250V. | UL498, IEC60320 | UL, VDE |
| Fuse (F1) | Littelfuse Wickmann-Werke GmbH | 392 | 250V, 3.15A | UL248, VDE0820, EN60127 | UL, VDE |
| Fuse (F1) Alternate | Save Fusetech Inc. | SS-5 | 250V, 3.15A | UL248, VDE0820, EN60127 | UL, VDE |
| Thermal Fuse (F1) (Optional) Alternate | Seki Controls Co., Ltd. | ST-22 | 250V, 7A | EN60730-1, VDE0631-1 | USR, VDE |
| Fuse (F2) - | Littelfuse Wickmann-Werke GmbH | 392 | 250V, 3.15A | UL248, VDE0820, EN60127 | UL, VDE |
| Fuse (F2) - Alternate | Save Fusetech Inc. | SS-5 | 250V, 3.15A | UL248, VDE0820, EN60127 | UL, VDE |
| Thermistor (TH1) | Various | Various | NTC, 5ohm at 25°C. | - | -, - |
| Discharging Resistors (RP30, RP31) | Various | Various | 180Kohm 1/8W. | - | -, - |
| Discharging Resistors (RP111, RP112) | Various | Various | 510Kohm 1/8W | - | -, - |
| Discharging IC (UP3) | Power Integrations Inc. | CAP014DG | 1uF, 780Kohm | - | -, - |
| Varistor (TNR1) Optional | Success Electronics Co., Ltd. | SVR14D471K | (Line to Line) 470V Overall 14 mm. | UL1449 IEC/EN61051 | UL, VDE |
| Varistor (TNR1) Optional Alternate | Amotech Co., Ltd. | INR14D471 | (Line to Line) 470V Overall 14 mm. | UL1449 IEC/EN61051 | UL, VDE |
| X-Capacitor (CX1) | Carli Electronics Co., Ltd. | MPX | (Line to Line) 250V, maximum | UL1414, IEC60384-14, | UL, FIMKO |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| | | | 1uF. Marked with X1 or X2. Meets IEC384-14. | EN132400 | |
| X-Capacitor (CX1) Alternate | Iskra Mis D D | KNB 1530 or 1562 or 1563 | (Line to Line) 250V, maximum 1uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX1) Alternate | Pilkor Electronics Co., Ltd. | PCX2 335M or PCX2 337 | (Line to Line) 250V, maximum 1uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX1) Alternate | Okaya Electric Industries Co., Ltd. | LE | (Line to Line) 250V, maximum 1uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX1) Alternate | Sun Il Electronics Industry Co., Ltd. | 436D | (Line to Line) 250V, maximum 1uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX2) | Carli Electronics Co., Ltd. | MPX | (Line to Line) 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX2) Alternate | Iskra Mis D D | KNB 1530 or 1562 or 1563 | 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX2) Alternate | Pilkor Electronics Co., Ltd. | PCX2 335M or PCX2 337 | 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX2) Alternate | Okaya Electric Industries Co., Ltd. | LE | 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| X-Capacitor (CX2) Alternate | Sun Il Electronics Industry Co., Ltd. | 436D | 250V, maximum 0.47uF. Marked with X1 or X2. Meets IEC384- | UL1414, IEC60384-14, EN132400 | UL, FIMKO |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| | | | 14. | | |
| Line Filter (LF1) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | 3025671A | Core: Ferrite 28 by 28 mm Coils: Polyurethane Wire, minimum 130°C. Bobbin: (QMFZ2), Hexian Specialty Chemicals Inc., Type PM9820@, V-0, 150°C. | - | -, - |
| Line Filter (LP4, LP5) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | Part No.: 3025642A | Core: Ferrite 13.7 by 8 mm Coils: Polyurethane Wire, minimum 130°C Insulation Tubing/Sleeving: FEP, PTFE, PVC, TFE, Neoprene, Polyimide or VW-1; 130°C. | - | -, - |
| PFC Coil (LP3) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | Part No.: 3025578A | Core: Ferrite 26 by 25 mm Coils: Polyurethane Wire, minimum 130°C. Bobbin: (QMFZ2), Hexian Specialty Chemicals Inc.,Type PM9820@, V-0, 150°C. | - | -, - |
| Y-Capacitors (CY1, CY2) | Success Electronics Co., Ltd. | SE or SB | 250V, maximum 1000pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| Y-Capacitors (CY1, CY2) Alternate | Murata Mfg. Co., Ltd. | KX or KY | 250V, maximum 1000pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| Y-Capacitors (CY3, CY4) | Success Electronics Co., Ltd. | SE or SB | 250V, maximum 1500pF. Marked with Y1 or Y2. Meets | UL1414, IEC60384-14, EN132400 | UL, FIMKO |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| | | | IEC60384-14. | | |
| Y-Capacitors (CY3, CY4) Alternate | Murata Mfg. Co., Ltd. | KX or KY | 250V, maximum 1500pF. Marked with Y1 or Y2. Meets IEC60384-14. | UL1414, IEC60384-14, EN132400 | UL, FIMKO |
| Bridge Diode (BD1) | Various | Various | Minimum 600V, maximum 10A. | - | -, - |
| Electrolytic Capacitor (CP1) | Various | Various | Minimum 400V, maximum 150uF, minimum 105°C. | - | -, - |
| FET (QP1) | Various | Various | Minimum 550V, maximum 20A. Secured to Heat Sink (HS1) by screw. | - | -, - |
| FET (QP3) | Various | Various | 800V, 11A or 13A Secured to Heat Sink (HS1) by screw. | - | -, - |
| Switching IC (UP1) | Various | Various | Maximum 30V, 0.05A. | - | -, - |
| Switching IC (UP2) | Various | Various | Maximum 31V, 4.0mA. | - | -, - |
| Main Transformer (T1) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | JEC(B) (Part No.: 3025579001A for 12V, 13V output; Part No.: 3025579002A for 15V, 16V output; | (OBJY2), Class B Insulation System. Core: Ferrite 40 by 42 mm. PRI-SEC Coils: TIW: Furukawa Electric Co., Ltd., TEX-E, 130°C Bobbin: (QMFZ2), V-0, 150°C | UL1446 | UL, - |
| Main Transformer (T1) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | JEC(B) (Part No.: 3025579004A for 24V, output) | (OBJY2) Class B Insulation System. Core: Ferrite 40 by 42 mm PRI-SEC Coils: TIW: Furukawa Electric Co., Ltd., TEX-E, 130°C Bobbin: (QMFZ2), V-0, | UL1446 | UL, - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| | | | 150°C | | |
| Main Transformer (T1) | Bridgepower Corp. or Wendeng Jeil Electronics Co., Ltd. | JEC(B) (Part No.: 3025579003A for 18V, 19V output) | (OBJY2), Class B Insulation System. Core: Ferrite 40 by 42 mm. PRI-SEC Coils: TIW: Furukawa Electric Co., Ltd., TEX-E, 130°C Bobbin: (QMFZ2), V-0, 150°C | UL1446 | UL, - |
| Optical Isolator (PSU1) | Vishay Semiconductor Gmbh | TCET1103(G) | Double Protection. Isolation 5000Vac. External dcr minimum 8.0 mm. | UL1577, EN60950 | UL, VDE |
| Optical Isolator (PSU1) Alternate | Cosmo Electronics Corp. | KP1010 | Double Protection. Isolation 5000Vac. External dcr minimum 8.0 mm. | UL1577, EN60950 | UL, VDE |
| Optical Isolator (PSU1) Alternate | Sharp Corp. | PC123 | Double Protection. Isolation 5000Vac. | UL1577, EN60950 | UL, VDE |
| Optical Isolator (PSU1) Alternate | Kodenshi Corp. | PC-17K or PC-17K1C | Double Protection. Isolation 5000Vac. External dcr minimum 8.0 mm. | UL1577, EN60950 | UL, VDE |
| Zener Diode (DP3) | Various | Various | 18V, 0.5W | - | -, - |
| Insulator Sheet (Around Transformer (T1) Primary) | Various | Various | One piece. V-0, minimum 125°C. Overall approximately 42 by 42 mm, minimum 0.4 mm thick. | UL94, UL746C | UL, - |
| Heat Sink (HS1) | Various | Various | Metal. Overall | - | -, - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| (Primary) | | | approximately 128.7 by 36 mm, 2 mm thick. Wound by Polyester Film Tape, (OANZ2), minimum 130°C, minimum three turns in primary side. | | |
| Heat Sink (HS2) (Secondary) | Various | Various | Metal. Overall approximately 69.3 by 36 mm, 3 mm thick. Wound by Polyester Film Tape, (OANZ2), minimum 130°C, minimum three turns in primary side. | - | -, - |
| Heat Sink (HS3) (Around BD1)_optional | Various | Various | Metal. Overall approximately 40 by 30 mm, 1.5 mm thick. Wound by Polyester Film Tape, (OANZ2), minimum 130°C, minimum 1 turns in primary side. | - | -, - |
| Silicon Pad (Above T1) | Bergquist | 900-S# | Overall Sized Min. ø 43 by 23 mm , Min.5.0 mm thick, V-0, 150 deg.C. | UL94, UL746C | UL, - |
| Silicon Pad (Above T1) - Alternate | JIANGSU HONGDA NEW MATERIAL CO LTD | HD-87 | Overall Sized Min. ø 43 by 23 mm , Min.5.0 mm thick, V-0, 150 deg.C. | UL94, UL746C | UL, - |
| Silicon Pad (Above PFC1) | Bergquist | 900-S# | Overall Sized Min. ø 25 by 18 mm , Min.5.0 mm thick, * 2EA V- | UL94, UL746C | UL, - |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | |
|---|---|---|---|---|---|
| | | | 0, 150 | | |
| Silicon Pad (Above PFC1-Alternate | Jiangsu Hongda Chemical New Material | HD-87 | Overall Sized Min. ø 25 by 18 mm , Min.5.0 mm thick, * 2EA V-0, 150 | UL94, UL746C | UL, - |
| Printed Wiring Board (PWB) | Various | Various | Minimum V-1, 130°C. | UL796 | UL, - |
| Protective Bonding Conductor | Various | Various | Mechanically clamped or secured on PWB from Appliance Inlet. Minimum 18 AWG, Green-and-Yellow Insulation. | UL758 | UL, - |
| Bonding Glue | Various | Various | Minimum V-2, minimum 100°C for additional secureness of Internal Conductor. | UL94, UL746C | UL, - |
| Output Cable | Various | Various | For use of External Interconnection), Style No. 2464 or 1777, VW-1 or FT-1, 18 AWG, maximum 3.05 m long. | UL758 | UL, - |
| Nameplate Label | Various | Various | Suitable for use on surface of Polycarbonate (PC) with max.60°C surface temperature. | UL969 | UL, - |
| Supplementary information:<br>[1]) Provided evidence ensures the agreed level of compliance. See OD-CB2039. | | | | | |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| 1.5.1 | **TABLE: Opto Electronic Devices** | | | Pass |
|---|---|---|---|---|
| Manufacturer.....: | | | | |
| Type.....: | | | | |
| Separately tested.....: | | | | |
| Bridging insulation.....: | | | | |
| External creepage distance.....: | | | | |
| Internal creepage distance.....: | | | | |
| Distance through insulation.....: | | | | |
| Tested under following conditions.....: | | | | |
| Input.....: | | | | |
| Output.....: | | | | |
| | | | | |
| supplementary information: | | | | |
| See critical component list , Thermal Cycling Test conducted. | | | | |

| 1.6.2 | **TABLE: electrical data (in normal conditions)** | | | | | Pass |
|---|---|---|---|---|---|---|
| U (V) | I (A) | I rated (A) | P (W) | Fuse # | I fuse (A) | condition/status |
| - | - | - | - | - | - | Model JPW1100KA1200F01 |
| 90Vac | 1.176 | N/A | 105.4 | F1,F2 | 1.176 | Max. normal load, 50Hz |
| 100Vac | 1.047 | 2.0 | 104.5 | F1,F2 | 1.047 | Max. normal load, 50Hz |
| 240Vac | 0.436 | 2.0 | 101.4 | F1,F2 | 0.436 | Max. normal load, 50Hz |
| 264Vac | 0.440 | N/A | 101.4 | F1,F2 | 0.440 | Max. normal load, 50Hz |
| 90Vac | 1.180 | N/A | 105.8 | F1,F2 | 1.180 | Max. normal load, 60Hz |
| 100Vac | 1.049 | 2.0 | 104.6 | F1,F2 | 1.049 | Max. normal load, 60Hz |
| 240Vac | 0.438 | 2.0 | 101.4 | F1,F2 | 0.438 | Max. normal load, 60Hz |
| 264Vac | 0.445 | N/A | 101.3 | F1,F2 | 0.445 | Max. normal load, 60Hz |
| - | - | - | - | - | - | Model JPW1100KA1500F01 |
| 90Vac | 1.281 | N/A | 114.8 | F1,F2 | 1.281 | Max. normal load, 50Hz |
| 100Vac | 1.140 | 2.0 | 113.7 | F1,F2 | 1.140 | Max. normal load, 50Hz |
| 240Vac | 0.467 | 2.0 | 109.0 | F1,F2 | 0.467 | Max. normal load, 50Hz |
| 264Vac | 0.457 | N/A | 107.2 | F1,F2 | 0.457 | Max. normal load, 50Hz |
| 90Vac | 1.284 | N/A | 115.0 | F1,F2 | 1.284 | Max. normal load, 60Hz |
| 100Vac | 1.141 | 2.0 | 113.8 | F1,F2 | 1.141 | Max. normal load, 60Hz |
| 240Vac | 0.469 | 2.0 | 109.0 | F1,F2 | 0.469 | Max. normal load, 60Hz |
| 264Vac | 0.469 | N/A | 108.9 | F1,F2 | 0.469 | Max. normal load, 60Hz |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| - | - | - | - | - | - | Model JPW1100KA1800F01 |
| 90Vac | 1.319 | N/A | 117.8 | F1,F2 | 1.319 | Max. normal load, 50Hz |
| 100Vac | 1.165 | 2.0 | 116.2 | F1,F2 | 1.165 | Max. normal load, 50Hz |
| 240Vac | 0.481 | 2.0 | 112.2 | F1,F2 | 0.481 | Max. normal load, 50Hz |
| 264Vac | 0.483 | N/A | 112.3 | F1,F2 | 0.483 | Max. normal load, 50Hz |
| 90Vac | 1.322 | N/A | 118.1 | F1,F2 | 1.322 | Max. normal load, 60Hz |
| 100Vac | 1.167 | 2.0 | 116.3 | F1,F2 | 1.167 | Max. normal load, 60Hz |
| 240Vac | 0.481 | 2.0 | 112.4 | F1,F2 | 0.481 | Max. normal load, 60Hz |
| 264Vac | 0.482 | N/A | 112.2 | F1,F2 | 0.482 | Max. normal load, 60Hz |
| - | - | - | - | - | - | Model JPW1100KA2400F01 |
| 90Vac | 1.292 | N/A | 115.9 | F1,F2 | 1.292 | Max. normal load, 50Hz |
| 100Vac | 1.149 | 2.0 | 114.6 | F1,F2 | 1.149 | Max. normal load, 50Hz |
| 240Vac | 0.474 | 2.0 | 111.1 | F1,F2 | 0.474 | Max. normal load, 50Hz |
| 264Vac | 0.477 | N/A | 111.3 | F1,F2 | 0.477 | Max. normal load, 50Hz |
| 90Vac | 1.298 | N/A | 116.0 | F1,F2 | 1.298 | Max. normal load, 60Hz |
| 100Vac | 1.149 | 2.0 | 114.4 | F1,F2 | 1.149 | Max. normal load, 60Hz |
| 240Vac | 0.476 | 2.0 | 110.9 | F1,F2 | 0.476 | Max. normal load, 60Hz |
| 264Vac | 0.484 | N/A | 111.0 | F1,F2 | 0.484 | Max. normal load, 60Hz |
| <11CA15702> See below | N/A | N/A | N/A | N/A | N/A | N/A |
| JPW1100KB1200F01 | N/A | N/A | N/A | N/A | N/A | N/A |
| 90Vac | 1.204 | N/A | 106.40 | F1,F2 | 1.204 | Maximum Normal Load/50Hz |
| 100Vac | 1.066 | 2.0 | 105.14 | F1,F2 | 1.066 | Maximum Normal Load/50Hz |
| 240Vac | 0.457 | 2.0 | 102.90 | F1,F2 | 0.457 | Maximum Normal Load/50Hz |
| 264Vac | 0.429 | N/A | 102.60 | F1,F2 | 0.429 | Maximum Normal Load/50Hz |
| 90Vac | 1.206 | N/A | 106.24 | F1,F2 | 1.206 | Maximum Normal Load/60Hz |
| 100Vac | 1.072 | 2.0 | 105.50 | F1,F2 | 1.072 | Maximum Normal Load/60Hz |
| 240Vac | 0.467 | 2.0 | 102.84 | F1,F2 | 0.467 | Maximum Normal Load/60Hz |
| 264Vac | 0.445 | N/A | 102.60 | F1,F2 | 0.445 | Maximum Normal Load/60Hz |
| JPW1100KB1300F01 | N/A | N/A | N/A | N/A | N/A | N/A |
| 90Vac | 1.222 | N/A | 108.31 | F1,F2 | 1.222 | Maximum Normal Load/50Hz |
| 100Vac | 1.080 | 2.0 | 106.98 | F1,F2 | 1.080 | Maximum Normal Load/50Hz |
| 240Vac | 0.504 | 2.0 | 107.20 | F1,F2 | 0.504 | Maximum Normal Load/50Hz |
| 264Vac | 0.527 | N/A | 106.00 | F1,F2 | 0.527 | Maximum Normal Load/50Hz |
| 90Vac | 1.222 | N/A | 108.08 | F1,F2 | 1.222 | Maximum Normal Load/60Hz |
| 100Vac | 1.086 | 2.0 | 107.15 | F1,F2 | 1.086 | Maximum Normal Load/60Hz |
| 240Vac | 05.20 | 2.0 | 106.50 | F1,F2 | 05.20 | Maximum Normal Load/60Hz |
| 264Vac | 0.544 | N/A | 106.10 | F1,F2 | 0.544 | Maximum Normal Load/60Hz |
| JPW1100KB1500F01 | N/A | N/A | N/A | N/A | N/A | N/A |
| 90Vac | 1.270 | N/A | 112.08 | F1,F2 | 1.270 | Maximum Normal Load/50Hz |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| 100Vac | 1.120 | 2.0 | 110.63 | F1,F2 | 1.120 | Maximum Normal Load/50Hz |
| 240Vac | 0.473 | 2.0 | 107.83 | F1,F2 | 0.473 | Maximum Normal Load/50Hz |
| 264Vac | 0.444 | N/A | 107.63 | F1,F2 | 0.444 | Maximum Normal Load/50Hz |
| 90Vac | 1.270 | N/A | 112.12 | F1,F2 | 1.270 | Maximum Normal Load/60Hz |
| 100Vac | 1.124 | 2.0 | 110.77 | F1,F2 | 1.124 | Maximum Normal Load/60Hz |
| 240Vac | 0.484 | 2.0 | 107.98 | F1,F2 | 0.484 | Maximum Normal Load/60Hz |
| 264Vac | 0.459 | N/A | 107.78 | F1,F2 | 0.459 | Maximum Normal Load/60Hz |
| JPW1100KB1600F01 | N/A | N/A | N/A | N/A | N/A | N/A |
| 90Vac | 1.255 | N/A | 111.04 | F1,F2 | 1.255 | Maximum Normal Load/50Hz |
| 100Vac | 1.112 | 2.0 | 109.69 | F1,F2 | 1.112 | Maximum Normal Load/50Hz |
| 240Vac | 0.476 | 2.0 | 107.82 | F1,F2 | 0.476 | Maximum Normal Load/50Hz |
| 264Vac | 0.444 | N/A | 107.40 | F1,F2 | 0.444 | Maximum Normal Load/50Hz |
| 90Vac | 1.261 | N/A | 111.05 | F1,F2 | 1.261 | Maximum Normal Load/60Hz |
| 100Vac | 1.115 | 2.0 | 109.64 | F1,F2 | 1.115 | Maximum Normal Load/60Hz |
| 240Vac | 0.484 | 2.0 | 107.47 | F1,F2 | 0.484 | Maximum Normal Load/60Hz |
| 264Vac | 0.459 | N/A | 107.26 | F1,F2 | 0.459 | Maximum Normal Load/60Hz |
| <E300305-A33-CB-2, Amendment3>, 11CA37964 | N/A | N/A | N/A | N/A | N/A | N/A |
| Model ; JPW1100KB1800F01 | N/A | N/A | N/A | N/A | N/A | N/A |
| 90Vac | 1.385 | N/A | 121.90 | F1,F2 | 1.385 | Maximum Normal Load/50Hz |
| 100Vac | 1.221 | 2.0 | 120.20 | F1,F2 | 1.221 | Maximum Normal Load/50Hz |
| 240Vac | 0.502 | 2.0 | 117.35 | F1,F2 | 0.502 | Maximum Normal Load/50Hz |
| 264Vac | 0.465 | N/A | 117.15 | F1,F2 | 0.465 | Maximum Normal Load/50Hz |
| 90Vac | 1.385 | N/A | 121.70 | F1,F2 | 1.385 | Maximum Normal Load/60Hz |
| 100Vac | 1.225 | 2.0 | 120.08 | F1,F2 | 1.225 | Maximum Normal Load/60Hz |
| 240Vac | 0.505 | 2.0 | 116.80 | F1,F2 | 0.505 | Maximum Normal Load/60Hz |
| 264Vac | 0.471 | N/A | 116.70 | F1,F2 | 0.471 | Maximum Normal Load/60Hz |
| Model ; JPW1100KB1900F01 | N/A | N/A | N/A | N/A | N/A | N/A |
| 90Vac | 1.320 | N/A | 116.45 | F1,F2 | 1.320 | Maximum Normal Load/50Hz |
| 100Vac | 1.168 | 2.0 | 115.00 | F1,F2 | 1.168 | Maximum Normal Load/50Hz |
| 240Vac | 0.480 | 2.0 | 112.17 | F1,F2 | 0.480 | Maximum Normal Load/50Hz |
| 264Vac | 0.444 | N/A | 111.92 | F1,F2 | 0.444 | Maximum Normal Load/50Hz |
| 90Vac | 1.324 | N/A | 116.30 | F1,F2 | 1.324 | Maximum Normal Load/60Hz |
| 100Vac | 1.172 | 2.0 | 115.00 | F1,F2 | 1.172 | Maximum Normal Load/60Hz |
| 240Vac | 0.485 | 2.0 | 112.27 | F1,F2 | 0.485 | Maximum Normal Load/60Hz |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| 264Vac | 0.453 | N/A | 112.03 | F1,F2 | 0.453 | Maximum Normal Load/60Hz |
| Model ; JPW1100KB2400F01 | N/A | N/A | N/A | N/A | N/A | N/A |
| 90Vac | 1.327 | N/A | 117.40 | F1,F2 | 1.327 | Maximum Normal Load/50Hz |
| 100Vac | 1.176 | 2.0 | 116.00 | F1,F2 | 1.176 | Maximum Normal Load/50Hz |
| 240Vac | 0.491 | 2.0 | 113.20 | F1,F2 | 0.491 | Maximum Normal Load/50Hz |
| 264Vac | 0.458 | N/A | 112.94 | F1,F2 | 0.458 | Maximum Normal Load/50Hz |
| 90Vac | 1.335 | N/A | 117.55 | F1,F2 | 1.335 | Maximum Normal Load/60Hz |
| 100Vac | 1.180 | 2.0 | 116.06 | F1,F2 | 1.180 | Maximum Normal Load/60Hz |
| 240Vac | 0.499 | 2.0 | 113.24 | F1,F2 | 0.499 | Maximum Normal Load/60Hz |
| 264Vac | 0.471 | N/A | 112.95 | F1,F2 | 0.471 | Maximum Normal Load/60Hz |
| <E300305-A33-CB-3> | N/A | N/A | N/A | N/A | N/A | N/A |
| 90Vac | 1.203 | N/A | 106.35 | F1,F2 | 1.203 | Maximum Normal Load/50Hz |
| 100Vac | 1.066 | 2.0 | 105.12 | F1,F2 | 1.066 | Maximum Normal Load/50Hz |
| 240Vac | 0.457 | 2.0 | 102.88 | F1,F2 | 0.457 | Maximum Normal Load/50Hz |
| 264Vac | 0.428 | N/A | 102.58 | F1,F2 | 0.428 | Maximum Normal Load/50Hz |
| 90Vac | 1.204 | N/A | 106.22 | F1,F2 | 1.204 | Maximum Normal Load/60Hz |
| 100Vac | 1.070 | 2.0 | 105.45 | F1,F2 | 1.070 | Maximum Normal Load/60Hz |
| 240Vac | 0.466 | 2.0 | 102.82 | F1,F2 | 0.466 | Maximum Normal Load/60Hz |
| 264Vac | 0.443 | N/A | 102.57 | F1,F2 | 0.443 | Maximum Normal Load/60Hz |
| supplementary information: | | | | | | |

| 2.1.1.5 c) 1) | **TABLE: Max. V, A, VA test** | Pass |
|---|---|---|

| Voltage(rated) (V) | Current(rated) (A) | Voltage (max.) (V) | Current (max.) (A) | VA (max.) (VA) |
|---|---|---|---|---|
| | | | | |

supplementary information:

See clause 2.1.1.5

| 2.1.1.5 c) 2) | **TABLE: Stored energy** | Pass |
|---|---|---|

| Capacitance C (µF) | Voltage U (V) | Energy E (J) |
|---|---|---|
| | | |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| supplementary information: |
|---|
| See clause 2.1.1.5 |

| 2.2 | **TABLE: Evaluation of voltage limiting components in SELV circuits** | | Pass |
|---|---|---|---|
| Component (measured between) | max. voltage (V) (normal operation) | | Voltage Limiting Components |
| | V Peak | V d.c. | |
| | | | |
| Fault test performed on voltage limiting components | Voltage measured (V) in SELV circuits (V peak or V d.c.) | | |
| | | | |
| supplementary information: | | | |
| | | | |

| 2.5 | **TABLE: limited power sources** | | | | N/A |
|---|---|---|---|---|---|
| Circuit output tested: | | | | | |
| Measured Uoc (V) with all load circuits disconnected: | | | | | |
| | Isc (A) | | VA | | |
| | Meas. | Limit | Meas. | Limit | |
| Normal condition | | | | | |
| Single fault: ___ | | | | | |
| | | | | | |
| supplementary information: | | | | | |
| Sc=short circuit, Oc-Open circuit | | | | | |

| 2.10.2 | **TABLE: working voltage measurement** | | | Pass |
|---|---|---|---|---|
| Location | RMS Voltage (V) | Peak voltage (V) | Comments | |
| | | | | |
| supplementary information: | | | | |
| See table 2.10.3 and 2.10.4 | | | | |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| 2.10.3 and 2.10.4 | **TABLE: clearance and creepage distance measurements** | | | | | Pass |
|---|---|---|---|---|---|---|
| Clearance (cl) and creepage distance (cr) at/of/between: | U peak (V) | U r.m.s. (V) | Required cl (mm) | cl (mm) | Required cr (mm) | cr (mm) |
| - | - | - | - | - | - | - |
| Functional: | | | | | | |
| Clearance (cl) and creepage distance (cr) at/of/between: | U peak (V) | U r.m.s. (V) | Required cl (mm) | cl (mm) | Required cr (mm) | cr (mm) |
| - | - | - | - | - | - | - |
| Basic/supplementary: | | | | | | |
| Clearance (cl) and creepage distance (cr) at/of/between: | U peak (V) | U r.m.s. (V) | Required cl (mm) | cl (mm) | Required cr (mm) | cr (mm) |
| Model JPW1100KA1500F01 | - | - | - | - | - | - |
| CY3 | 240 | 128 | 2.96 | 5.0 | 2.96 | 5.0 |
| CY4 | 125 | 62.3 | 2.96 | 5.0 | 2.96 | 5.0 |
| Model JPW1100KA2400F01 | - | - | - | - | - | - |
| CY3 | 240 | 127 | 2.96 | 5.0 | 2.96 | 5.0 |
| CY4 | 125 | 64.8 | 2.96 | 5.0 | 2.96 | 5.0 |
| JPW1100KB1200F01 | - | - | - | - | - | - |
| Line/Neutral | 360 | 240 | 2.96 | 8.4 | 2.96 | 8.4 |
| CY3 | 220 | 131 | 2.96 | 5.0 | 2.96 | 5.0 |
| CY4 | 225 | 121 | 2.96 | 5.0 | 2.96 | 5.0 |
| JPW1100KB1300F01 | - | - | - | - | - | - |
| Line/Neutral | 360 | 240 | 2.96 | 8.4 | 2.96 | 8.4 |
| CY3 | 235 | 119 | 2.96 | 5.0 | 2.96 | 5.0 |
| CY4 | 145 | 67 | 2.96 | 5.0 | 2.96 | 5.0 |
| JPW1100KB1500F01 | - | - | - | - | - | - |
| Line/Neutral | 360 | 240 | 2.96 | 8.4 | 2.96 | 8.4 |
| CY3 | 255 | 137 | 2.96 | 5.0 | 2.96 | 5.0 |
| CY4 | 125 | 64 | 2.96 | 5.0 | 2.96 | 5.0 |
| JPW1100KB1600F01 | - | - | - | - | - | - |
| Line/Neutral | 360 | 240 | 2.96 | 8.4 | 2.96 | 8.4 |
| CY3 | 255 | 138 | 2.96 | 5.0 | 2.96 | 5.0 |
| CY4 | 115 | 65 | 2.96 | 5.0 | 2.96 | 5.0 |
| <E300305-A33-CB-2, Amendment3>, 11CA37964 | N/A | N/A | N/A | N/A | N/A | N/A |
| Model ; JPW1100KB1800F01 | N/A | N/A | N/A | N/A | N/A | N/A |
| Line/Neutral | 360 | 240 | 2.96 | 8.4 | 2.96 | 8.4 |
| CY3 | 250 | 134 | 2.96 | 5.0 | 2.96 | 5.0 |
| CY4 | 107 | 62 | 2.96 | 5.0 | 2.96 | 5.0 |
| Model ; JPW1100KB1900F01 | N/A | N/A | N/A | N/A | N/A | N/A |
| Line/Neutral | 360 | 240 | 2.96 | 8.4 | 2.96 | 8.4 |
| CY3 | 238 | 131 | 2.96 | 5.0 | 2.96 | 5.0 |
| CY4 | 112 | 63 | 2.96 | 5.0 | 2.96 | 5.0 |
| Model ; JPW1100KB2400F01 | N/A | N/A | N/A | N/A | N/A | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| Line/Neutral | 360 | 240 | 2.96 | 8.4 | 2.96 | 8.4 |
| CY3 | 246 | 133 | 2.96 | 5.0 | 2.96 | 5.0 |
| CY4 | 110 | 61 | 2.96 | 5.0 | 2.96 | 5.0 |
| Reinforced: | | | | | | |
| Clearance (cl) and creepage distance (cr) at/of/between: | U peak (V) | U r.m.s. (V) | Required cl (mm) | cl (mm) | Required cr (mm) | cr (mm) |
| Model JPW1100KA1500F01 | - | - | - | - | - | - |
| T1, # 8 to # 14, 15, 16 | 510 | 359 | 6.51 | 8.0 | 7.4 | 8.0 |
| PSU1, primary to secondary | 360 | 176 | 5.92 | 6.4 | 5.92 | 6.4 |
| Model JPW1100KA2400F01 | - | - | - | - | - | - |
| T1, # 7 to # 14, 15, 16 | 540 | 379 | 6.51 | 8.0 | 7.7 | 8.0 |
| T1, # 8 to # 14, 15, 16 | 535 | 380 | 6.51 | 8.0 | 7.7 | 8.0 |
| PSU1, primary to secondary | 370 | 186 | 5.92 | 6.4 | 5.92 | 6.4 |
| JPW1100KB1200F01 | - | - | - | - | - | - |
| T1 pin1 / T1 pin 11, 12,13 | 385 | 184 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin1 / T1 pin 14, 15,16 | 430 | 185 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin 2 / T1 pin11,12,13 | 435 | 184 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin2 / T1 pin 14,15,16 | 500 | 190 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin6 / T1 pin 11,12,13 | 410 | 303 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin6 / T1 pin 14, 15, 16 | 420 | 304 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin8 / T1 pin 11,12,13 | 610 | 351 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin8 / T1 pin14,15,16 | 620 | 367 | 6.8 | 8.0 | 7.7 | 8.0 |
| PSU pin1 / PSU pin3 | 370 | 178 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin1 / PSU pin4 | 370 | 178 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin2 / PSU pin3 | 370 | 178 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin2 / PSU pin4 | 370 | 178 | 5.92 | 6.4 | 5.92 | 6.4 |
| JPW1100KB1300F01 | - | - | - | - | - | - |
| T1 pin1 / T1 pin 11, 12,13 | 370 | 183 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin1 / T1 pin 14, 15,16 | 425 | 184 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin 2 / T1 pin11,12,13 | 435 | 183 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin2 / T1 pin 14,15,16 | 500 | 188 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin6 / T1 pin 11,12,13 | 410 | 301 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin6 / T1 pin 14, 15, 16 | 415 | 302 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin8 / T1 pin 11,12,13 | 625 | 354 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin8 / T1 pin14,15,16 | 640 | 369 | 6.8 | 8.0 | 7.7 | 8.0 |
| PSU pin1 / PSU pin3 | 375 | 183 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin1 / PSU pin4 | 375 | 183 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin2 / PSU pin3 | 375 | 183 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin2 / PSU pin4 | 375 | 183 | 5.92 | 6.4 | 5.92 | 6.4 |
| JPW1100KB1500F01 | - | - | - | - | - | - |
| T1 pin1 / T1 pin 11, 12,13 | 370 | 181 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin1 / T1 pin 14, 15,16 | 440 | 185 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin 2 / T1 pin11,12,13 | 460 | 188 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin2 / T1 pin 14,15,16 | 530 | 197 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin6 / T1 pin 11,12,13 | 410 | 302 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin6 / T1 pin 14, 15, 16 | 420 | 304 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin8 / T1 pin 11,12,13 | 610 | 353 | 6.8 | 8.0 | 7.7 | 8.0 |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| T1 pin8 / T1 pin14,15,16 | 625 | 370 | 6.8 | 8.0 | 7.7 | 8.0 |
| PSU pin1 / PSU pin3 | 375 | 183 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin1 / PSU pin4 | 375 | 183 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin2 / PSU pin3 | 375 | 183 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin2 / PSU pin4 | 375 | 183 | 5.92 | 6.4 | 5.92 | 6.4 |
| JPW1100KB1600F01 | - | - | - | - | - | - |
| T1 pin1 / T1 pin 11, 12,13 | 370 | 183 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin1 / T1 pin 14, 15,16 | 435 | 188 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin 2 / T1 pin11,12,13 | 455 | 189 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin2 / T1 pin 14,15,16 | 530 | 197 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin6 / T1 pin 11,12,13 | 410 | 298 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin6 / T1 pin 14, 15, 16 | 415 | 300 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin8 / T1 pin 11,12,13 | 595 | 350 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin8 / T1 pin14,15,16 | 620 | 368 | 6.8 | 8.0 | 7.7 | 8.0 |
| PSU pin1 / PSU pin3 | 375 | 183 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin1 / PSU pin4 | 375 | 183 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin2 / PSU pin3 | 375 | 183 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin2 / PSU pin4 | 375 | 183 | 5.92 | 6.4 | 5.92 | 6.4 |
| <E300305-A33-CB-2, Amendment3>, 11CA37964 | N/A | N/A | N/A | N/A | N/A | N/A |
| Model ; JPW1100KB1800F01 | N/A | N/A | - | - | - | - |
| T1 pin1 / T1 pin 11, 12,13 | 370 | 180 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin1 / T1 pin 14, 15,16 | 435 | 183 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin 2 / T1 pin11,12,13 | 440 | 183 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin2 / T1 pin 14,15,16 | 510 | 193 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin6 / T1 pin 11,12,13 | 400 | 298 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin6 / T1 pin 14, 15, 16 | 410 | 298 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin8 / T1 pin 11,12,13 | 565 | 356 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin8 / T1 pin14,15,16 | 580 | 377 | 6.8 | 8.0 | 7.7 | 8.0 |
| PSU pin1 / PSU pin3 | 365 | 178 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin1 / PSU pin4 | 365 | 177 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin2 / PSU pin3 | 365 | 179 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin2 / PSU pin4 | 365 | 177 | 5.92 | 6.4 | 5.92 | 6.4 |
| Model ; JPW1100KB1900F01 | N/A | N/A | - | - | - | - |
| T1 pin1 / T1 pin 11, 12,13 | 370 | 180 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin1 / T1 pin 14, 15,16 | 440 | 183 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin 2 / T1 pin11,12,13 | 435 | 183 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin2 / T1 pin 14,15,16 | 515 | 193 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin6 / T1 pin 11,12,13 | 405 | 304 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin6 / T1 pin 14, 15, 16 | 425 | 307 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin8 / T1 pin 11,12,13 | 565 | 365 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin8 / T1 pin14,15,16 | 590 | 387 | 6.8 | 8.0 | 7.7 | 8.0 |
| PSU pin1 / PSU pin3 | 365 | 178 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin1 / PSU pin4 | 365 | 177 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin2 / PSU pin3 | 365 | 177 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin2 / PSU pin4 | 365 | 178 | 5.92 | 6.4 | 5.92 | 6.4 |
| Model ; JPW1100KB2400F01 | N/A | N/A | - | - | - | - |
| T1 pin1 / T1 pin 11, 12,13 | 370 | 181 | 6.8 | 8.0 | 7.7 | 8.0 |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| T1 pin1 / T1 pin 14, 15,16 | 450 | 187 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin 2 / T1 pin11,12,13 | 440 | 185 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin2 / T1 pin 14,15,16 | 530 | 200 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin6 / T1 pin 11,12,13 | 390 | 291 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin6 / T1 pin 14, 15, 16 | 415 | 295 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin8 / T1 pin 11,12,13 | 540 | 356 | 6.8 | 8.0 | 7.7 | 8.0 |
| T1 pin8 / T1 pin14,15,16 | 565 | 383 | 6.8 | 8.0 | 7.7 | 8.0 |
| PSU pin1 / PSU pin3 | 365 | 178 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin1 / PSU pin4 | 365 | 178 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin2 / PSU pin3 | 365 | 178 | 5.92 | 6.4 | 5.92 | 6.4 |
| PSU pin2 / PSU pin4 | 365 | 179 | 5.92 | 6.4 | 5.92 | 6.4 |
| supplementary information: | | | | | | |
| Refer to IEC 60664-1 table A.2 Clearance is multiplied by 1.48, Test for optical isolator ; T1 ; 109degreeC(T1 was depenced on the measured T2), Period ; 30 days, Humidity test period ; 5 days | | | | | | |

| 2.10.5 | **TABLE: distance through insulation measurements** | | | | Pass |
|---|---|---|---|---|---|
| Distance through insulation (DTI) at/of: | U peak (V) | Urms (V) | Test voltage (V) | Required DTI (mm) | DTI (mm) |
| *) Optical Isolator(PSU1) | 370Vpk | 186Vrms | 3000 Vac | 0.4 | 0.4 |
| **)Transformer Bobbin(T1) | 540 Vpk | 380Vrms | 3000 Vac | 0.4 | 0.4 |
| <11CA15702> | - | - | - | - | - |
| *) Optical Isolator(PSU1) | 375Vpk | 183Vrms | 3000Vac | 0.4 | 0.4 |
| <E300305-A33-CB-2, Amendment3>, 11CA37964 | - | - | - | - | - |
| *) Optical Isolator(PSU1) | 357Vpk | 183Vrms | 3000Vac | 0.4 | 0.4 |
| <e300305-A33-CB-3> | - | - | - | - | - |
| Optical Isolator(PSU1) | 375Vpk | 183Vrms | 3000Vac | 0.4 | Thermal Cycling Conducted. |
| supplementary information: | | | | | |
| *) Certified by NCB(FIMKO or Equivalent) and UL **) Bobbin material: Phenolyc | | | | | |

| 4.3.8 | **TABLE: Batteries** | | | | N/A |
|---|---|---|---|---|---|
| The tests of 4.3.8 are applicable only when appropriate battery data is not available. | | | | | |
| Is it possible to install the battery in a reverse polarity position? | | | | | |
| | Non-rechargeable batteries | | Rechargeable batteries | | |
| | Discharging | Un- | Charging | Discharging | Reversed |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | intentional charging | | | | | charging | |
|---|---|---|---|---|---|---|---|---|---|
| | Meas. current | Manuf. specs. | | Meas. current | Manuf. specs. | Meas. current | Manuf. specs. | Meas. current | Manuf. specs. |
| Max. current during normal operation | | | | | | | | | |
| Max. current during fault operation | | | | | | | | | |
| | | | | | | | | | |

| Test results: | | Verdict |
|---|---|---|
| - Chemical leaks | | N/A |
| - Explosion of the battery | | N/A |
| - Emission of flame or expulsion of molten metal | | N/A |
| - Electric strength tests of equipment after completion of tests | | N/A |
| supplementary information: | | |

| 4.3.8 | **TABLE: Batteries** | | N/A |
|---|---|---|---|
| Battery Category (Lithium, NiMh, NiCad, Lithium ion, etc.).....: | | | |
| Manufacturer.....: | | | |
| Type/Model.....: | | | |
| Voltage.....: | | | |
| Capacity (mAh).....: | | | |
| Tested and Certified by (incl. Ref. No.).....: | | | |
| Circuit protection diagram (Refer indicated supplement of Enclosure-Miscellaneous).....: | | | |
| | | | |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| MARKINGS AND INSTRUCTIONS (1.7.12, 1.7.15) | | | |
|---|---|---|---|
| Location of replaceable battery.....: | | | |
| Language(s).....: | | | |
| Close to the battery.....: | | | |
| In the servicing instructions.....: | | | |
| In the operating instructions.....: | | | |
| In the operating instructions | | | |
| supplementary information: | | | |
| Additional devices may be described in Enclosure - Miscellaneous | | | |

| 4.5 | **TABLE: Thermal requirements** | | | | | | Pass |
|---|---|---|---|---|---|---|---|
| | Supply voltage (V)..... : | See below | See below | N/A | N/A | N/A | — |
| | Ambient Tmin (°C ) ..... : | N/A | N/A | N/A | N/A | N/A | — |
| | Ambient Tmax (°C ) ..... : | N/A | N/A | N/A | N/A | N/A | — |
| Maximum measured temperature T of part/at: | | T (°C) | | | | | allowed Tmax (°C) |
| Model JPW1100KA1200F01 | | 90Vac, 60Hz, Test duration: 5hr 21min | 264Vac, 60Hz, Test duration: 2hr 23min | N/A | N/A | N/A | N/A |
| 1. F2 | | 65.7 | 46.5 | 74.7 | 55.0 | N/A | 130 |
| 2. PWB under TH1, 130°C | | 87.8 | 57.8 | 96.8 | 66.3 | N/A | 130 |
| 3. CX1, 100°C | | 72 | 52.5 | 81.0 | 61.0 | N/A | 100 |
| 4. LF1 Coil, 130°C | | 88.9 | 57.2 | 97.9 | 65.7 | N/A | 130 |
| 5. CY2, 125°C | | 83.8 | 62.9 | 92.8 | 71.4 | N/A | 125 |
| 6. CP1, 105°C | | 78.6 | 62.3 | 87.6 | 70.8 | N/A | 105 |
| 7. LP1 Coil, 130°C | | 97.8 | 77.3 | 106.8 | 85.8 | N/A | 130 |
| 8. LP2 Coil, 130°C | | 101.4 | 78 | 110.4 | 86.5 | N/A | 130 |
| 9. LP3 Coil, 130°C | | 99.3 | 76.4 | 108.3 | 84.9 | N/A | 130 |
| 10. U2, 100°C | | 76.4 | 70.3 | 85.4 | 78.8 | N/A | 100 |
| 11. T1 Coil, 110°C | | 93.9 | 86.1 | 102.9 | 94.6 | N/A | 110 |
| 12. T1 Core, 110°C | | 88.1 | 81.5 | 97.1 | 90.0 | N/A | 110 |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| 13. CY3, 125°C | 67.1 | 61.1 | 76.1 | 69.6 | N/A | 125 |
| 14. HS near QP1 | 71.9 | 64.4 | 80.9 | 72.9 | N/A | 130 |
| 15. HS near QS2 | 84.9 | 75.9 | 93.9 | 84.4 | N/A | 130 |
| 16. LS1 Coil, 130°C | 76.4 | 71.2 | 85.4 | 79.7 | N/A | 130 |
| 17. LS2 Coil, 130°C | 71.9 | 67.7 | 80.9 | 76.2 | N/A | 130 |
| 18. LP4 Coil, 130°C | 81 | 61.5 | 90.0 | 70.0 | N/A | 130 |
| 19. LP5 Coil, 130°C | 77.7 | 58.2 | 86.7 | 66.7 | N/A | 130 |
| 20. Inside Enclosure, 80°C | 56.4 | 52.2 | 65.4 | 60.7 | N/A | 80 |
| 21. Outside Enclosure, 80°C | 55.6 | 51.4 | 64.6 | 59.9 | N/A | 80 |
| 22. Ambient / Tma | 26 | 26.5 | 35.0 | 35.0 | N/A | N/A |
| Model JPW1100KA1800F01 | 90Vac, 60Hz, Test duration: 5hr 21min | 264Vac, 60Hz, Test duration: 2hr 23min | N/A | N/A | N/A | N/A |
| 1. F2 | 70.7 | 48.1 | 79.8 | 57.0 | N/A | 130 |
| 2. PWB under TH1, 130°C | 94 | 59 | 103.1 | 67.9 | N/A | 130 |
| 3. CX1, 100°C | 82.4 | 53.7 | 91.5 | 62.6 | N/A | 100 |
| 4. LF1 Coil, 130°C | 100 | 59.4 | 109.1 | 68.3 | N/A | 130 |
| 5. CY2, 125°C | 87.6 | 62.5 | 96.7 | 71.4 | N/A | 125 |
| 6. CP1, 105°C | 83.4 | 64.3 | 92.5 | 73.2 | N/A | 105 |
| 7. LP1 Coil, 130°C | 100.5 | 71.2 | 109.6 | 80.1 | N/A | 130 |
| 8. LP2 Coil, 130°C | 101.2 | 73 | 110.3 | 81.9 | N/A | 130 |
| 9. LP3 Coil, 130°C | 103.8 | 76.1 | 112.9 | 85.0 | N/A | 130 |
| 10. U2, 100°C | 75.7 | 67.8 | 84.8 | 76.7 | N/A | 100 |
| 11. T1 Coil, 110°C | 91.4 | 82.1 | 100.5 | 91.0 | N/A | 110 |
| 12. T1 Core, 110°C | 84.4 | 76.7 | 93.5 | 85.6 | N/A | 110 |
| 13. CY3, 125°C | 68.7 | 60.1 | 77.8 | 69.0 | N/A | 125 |
| 14. HS near QP1 | 73.9 | 62.4 | 83.0 | 71.3 | N/A | 130 |
| 15. HS near QS2 | 76.5 | 67 | 85.6 | 75.9 | N/A | 130 |
| 16. LS1 Coil, 130°C | 69.1 | 63.2 | 78.2 | 72.1 | N/A | 130 |
| 17. LS2 Coil, 130°C | 67 | 61.6 | 76.1 | 70.5 | N/A | 130 |
| 18. LP4 Coil, 130°C | 72.2 | 53.8 | 81.3 | 62.7 | N/A | 130 |
| 19. LP5 Coil, 130°C | 76.6 | 53.2 | 85.7 | 62.1 | N/A | 130 |
| 20. Inside Enclosure, 80°C | 57.3 | 51.8 | 66.4 | 60.7 | N/A | 80 |
| 21. Outside Enclosure, 80°C | 55.9 | 49.8 | 65.0 | 58.7 | N/A | 80 |
| 22. Ambient / Tma | 25.9 | 26.1 | 35.0 | 35.0 | N/A | N/A |
| <11CA15702>_See below | 90Vac/60Hz | 264Vac/60Hz | 90Vac/60Hz(Tma=35) | 264Vac/60Hz (Tma=35) | N/A | N/A |
| JPW1100KB1200F01 | - | - | - | - | - | - |
| F2 | 78.6 | 58.7 | 88.3 | 69.3 | N/A | 130 |
| PWB under TH1 | 88.8 | 59.6 | 98.5 | 70.2 | N/A | 130 |
| CX1 | 75.4 | 56.9 | 85.1 | 67.5 | N/A | 100 |
| LF1 | 90.3 | 66.3 | 100.0 | 76.9 | N/A | 130 |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| CY2 | 89 | 70.3 | 98.7 | 80.9 | N/A | 125 |
| CP1 | 80.6 | 65.9 | 90.3 | 76.5 | N/A | 105 |
| LP5 | 87.1 | 55.2 | 96.8 | 65.8 | N/A | 130 |
| LP3 | 100.7 | 82.4 | 110.4 | 93.0 | N/A | 130 |
| PSU1 | 80.7 | 73.6 | 90.4 | 84.2 | N/A | 100 |
| T1 Coil | 91.8 | 84.7 | 101.5 | 95.3 | N/A | 110 |
| T1 Core | 98.4 | 91.1 | 108.1 | 101.7 | N/A | 110 |
| CY3 | 74.4 | 67.4 | 84.1 | 78.0 | N/A | 125 |
| Heat Sink near QP1 | 80.7 | 70.6 | 90.4 | 81.2 | N/A | N/A |
| Heat Sink near QS1 | 90.6 | 80.2 | 100.3 | 90.8 | N/A | N/A |
| LS1 | 70.4 | 65.4 | 80.1 | 76.0 | N/A | 130 |
| LS2 | 75.2 | 70.5 | 84.9 | 81.1 | N/A | 130 |
| Inside Enclosure | 73.7 | 67.4 | 83.4 | 78.0 | N/A | 120 |
| Outside Enclosure | 57.9 | 53.3 | 67.6 | 63.9 | N/A | 95 |
| Ambient | 25.3 | 24.4 | 35.0 | 35.0 | N/A | N/A |
| Duration | 5hrs 24min | 4hrs 35min | N/A | N/A | N/A | N/A |
| <E300305-A33-CB-2, Amendment3>, 11CA37964 | N/A | N/A | N/A | N/A | N/A | N/A |
| Model ; JPW1100KB1800F01 | 90Vac/ 60Hz | 264Vac/60Hz | 90Vac/ 60Hz | 264Vac/60Hz | N/A | N/A |
| F2 | 85.4 | 61.5 | 90.5 | 66.8 | N/A | 130 |
| PWB under TH1 | 94.7 | 60.2 | 99.8 | 65.5 | N/A | 130 |
| CX1 | 78.7 | 55.1 | 83.8 | 60.4 | N/A | 100 |
| LF1 | 93.4 | 63.3 | 98.5 | 68.6 | N/A | 130 |
| CY2 | 95.3 | 68 | 100.4 | 73.3 | N/A | 125 |
| CP1 | 80.7 | 64.4 | 85.8 | 69.7 | N/A | 105 |
| LP5 | 95.8 | 50.9 | 100.9 | 56.2 | N/A | 130 |
| LP3 | 97.5 | 80.1 | 102.6 | 85.4 | N/A | 130 |
| PSU1 | 80.3 | 76.6 | 85.4 | 81.9 | N/A | 100 |
| T1 Coil | 82.7 | 75.7 | 87.8 | 81 | N/A | 110 |
| T1 Core | 91.3 | 84.3 | 96.4 | 89.6 | N/A | 110 |
| CY3 | 69.9 | 64.4 | 75 | 69.7 | N/A | 125 |
| Heat Sink near QP1 | 94.2 | 80.9 | 99.3 | 86.2 | N/A | N/A |
| Heat Sink near QS1 | 95.8 | 83.4 | 100.9 | 88.7 | N/A | N/A |
| Inside Enclosure | 51.4 | 47.2 | 56.5 | 52.5 | N/A | 120 |
| Outside Enclosure | 70.2 | 63.7 | 75.3 | 69 | N/A | 95 |
| Ambient | 24.9 | 24.7 | Tma=30.0 | Tma=30 | N/A | N/A |
| Duration | 3hrs 2min | 2hr 27min | N/A | N/A | N/A | N/A |
| Model ; JPW1100KB1900F01 | 90Vac/ 60Hz | 264Vac/60Hz | 90Vac/ 60Hz | 264Vac/60Hz | N/A | N/A |
| F2 | 85.1 | 61.5 | 87.4 | 63.2 | N/A | 130 |
| PWB under TH1 | 93.2 | 62.5 | 95.5 | 64.2 | N/A | 130 |
| CX1 | 77 | 57.5 | 79.3 | 59.2 | N/A | 100 |
| LF1 | 91.3 | 65.9 | 93.6 | 67.6 | N/A | 130 |
| CY2 | 93.5 | 70.7 | 95.8 | 72.4 | N/A | 125 |
| CP1 | 79.8 | 67.4 | 82.1 | 69.1 | N/A | 105 |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| LP5 | 92.6 | 53.9 | 94.9 | 55.6 | N/A | 130 |
| LP3 | 95.6 | 82.3 | 97.9 | 84 | N/A | 130 |
| PSU1 | 79.5 | 76.6 | 81.8 | 78.3 | N/A | 100 |
| T1 Coil | 82.8 | 78.1 | 85.1 | 79.8 | N/A | 110 |
| T1 Core | 90 | 85.5 | 92.3 | 87.2 | N/A | 110 |
| CY3 | 69.7 | 67.2 | 72 | 68.9 | N/A | 125 |
| Heat Sink near QP1 | 92.2 | 83.9 | 94.5 | 85.6 | N/A | N/A |
| Heat Sink near QS1 | 92.1 | 82.5 | 94.4 | 84.2 | N/A | N/A |
| Inside Enclosure | 62.8 | 62.5 | 65.1 | 64.2 | N/A | 120 |
| Outside Enclosure | 54.6 | 53 | 56.9 | 54.7 | N/A | 95 |
| Ambient | 27.7 | 28.3 | 30 | 30 | N/A | N/A |
| Duration | 2hr 47min | 3hr 5min | N/A | N/A | N/A | N/A |
| E300305-A33-CB-4, Reissue | N/A | N/A | N/A | N/A | N/A | N/A |
| JMW1100KB1300F01 | 90Vac/ 60Hz | 90Vac/ 60Hz(Tma=35 ) | 264Vac/60Hz | 264Vac/60Hz (Tma=35) | N/A | N/A |
| F2 | 87.2 | 95.7 | 54.5 | 62.8 | N/A | 130 |
| TH1 | 87.8 | 96.3 | 58.3 | 66.6 | N/A | 130 |
| CX1 | 75.9 | 84.4 | 56.8 | 65.1 | N/A | 100 |
| LF1 | 94.7 | 103.2 | 68.6 | 76.9 | N/A | 130 |
| CY2 | 89.4 | 97.9 | 71.7 | 80.0 | N/A | 125 |
| CP2 | 81.5 | 90.0 | 67.8 | 76.1 | N/A | 105 |
| LP5 | 85.8 | 94.3 | 53.7 | 62.0 | N/A | 130 |
| LP3 | 100.3 | 108.8 | 85.7 | 94.0 | N/A | 130 |
| PSU1 | 82.7 | 91.2 | 76.2 | 84.5 | N/A | 105 |
| T1 Coil | 98.8 | 107.3 | 88.6 | 96.9 | N/A | 110 |
| T1 Core | 93.5 | 102.0 | 85.1 | 93.4 | N/A | 110 |
| CY3 | 76.8 | 85.3 | 71.4 | 79.7 | N/A | 125 |
| Heatsink near QP1 | 82.2 | 90.7 | 76 | 84.3 | N/A | N/A |
| Heat sink near QS1 | 89.4 | 97.9 | 77.9 | 86.2 | N/A | N/A |
| LS1 | 74.7 | 83.2 | 68.8 | 77.1 | N/A | 130 |
| LS2 | 68.2 | 76.7 | 64.1 | 72.4 | N/A | 130 |
| Inside Enclosure | 75.2 | 83.7 | 68.8 | 77.1 | N/A | 120 |
| Outside Enclosure | 58.1 | 66.6 | 54.5 | 62.8 | N/A | 95 |
| Ambient | 26.5 | N/A | 26.7 | N/A | N/A | N/A |
| Duraton | 4hr 30min | N/A | 6hr 54min | N/A | N/A | N/A |
| JMW1100KB1500F01 | 90Vac/ 60Hz | 90Vac/ 60Hz(Tma=35 ) | 264Vac/60Hz | 264Vac/60Hz (Tma=35) | N/A | N/A |
| F2 | 92.6 | 100.4 | 54.8 | 63.3 | N/A | 130 |
| TH1 | 100.6 | 108.4 | 60.7 | 69.2 | N/A | 130 |
| CX1 | 80.6 | 88.4 | 55 | 63.5 | N/A | 100 |
| LF1 | 94.3 | 102.1 | 62.4 | 70.9 | N/A | 130 |
| CY2 | 90.5 | 98.3 | 67.2 | 75.7 | N/A | 125 |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| CP2 | 81.3 | 89.1 | 64.5 | 73.0 | N/A | 105 |
| LP5 | 96.6 | 104.4 | 51.7 | 60.2 | N/A | 130 |
| LP3 | 103.0 | 110.8 | 82.6 | 91.1 | N/A | 130 |
| PSU1 | 82.4 | 90.2 | 74.2 | 82.7 | N/A | 105 |
| T1 Coil | 92.3 | 100.1 | 81.8 | 90.3 | N/A | 110 |
| T1 Core | 90.9 | 98.7 | 81.9 | 90.4 | N/A | 110 |
| CY3 | 74.8 | 82.6 | 66.8 | 75.3 | N/A | 125 |
| Heatsink near QP1 | 87.8 | 95.6 | 76.2 | 84.7 | N/A | N/A |
| Heat sink near QS1 | 84.1 | 91.9 | 71.5 | 80.0 | N/A | N/A |
| LS1 | 74.7 | 82.5 | 68.1 | 76.6 | N/A | 130 |
| LS2 | 68.0 | 75.8 | 62 | 70.5 | N/A | 130 |
| Inside Enclosure | 68.1 | 75.9 | 61.1 | 69.6 | N/A | 120 |
| Outside Enclosure | 56.0 | 63.8 | 50.8 | 59.3 | N/A | 95 |
| Ambient | 27.2 | N/A | 26.5 | N/A | N/A | N/A |
| Duraton | 5hr 4min | N/A | 4hr 6min | N/A | N/A | N/A |
| JMW1100KB1600F01 | 90Vac/ 60Hz | 90Vac/ 60Hz(Tma=35 ) | 264Vac/60Hz | 264Vac/60Hz (Tma=35) | N/A | N/A |
| F2 | 94.1 | 102.5 | 56 | 64.9 | N/A | 130 |
| TH1 | 100.0 | 108.4 | 60.5 | 69.4 | N/A | 130 |
| CX1 | 80.9 | 89.3 | 55.2 | 64.1 | N/A | 100 |
| LF1 | 93.3 | 101.7 | 61.9 | 70.8 | N/A | 130 |
| CY2 | 90.0 | 98.4 | 66.8 | 75.7 | N/A | 125 |
| CP2 | 81.3 | 89.7 | 64.9 | 73.8 | N/A | 105 |
| LP5 | 97.7 | 106.1 | 52.6 | 61.5 | N/A | 130 |
| LP3 | 103.0 | 111.4 | 82.8 | 91.7 | N/A | 130 |
| PSU1 | 80.6 | 89.0 | 73.4 | 82.3 | N/A | 105 |
| T1 Coil | 89.1 | 97.5 | 79.9 | 88.8 | N/A | 110 |
| T1 Core | 88.2 | 96.6 | 80.3 | 89.2 | N/A | 110 |
| CY3 | 73.6 | 82.0 | 66.8 | 75.7 | N/A | 125 |
| Heatsink near QP1 | 80.7 | 89.1 | 71.8 | 80.7 | N/A | N/A |
| Heat sink near QS1 | 81.3 | 89.7 | 69.5 | 78.4 | N/A | N/A |
| LS1 | 71.6 | 80.0 | 66 | 74.9 | N/A | 130 |
| LS2 | 63.8 | 72.2 | 59.3 | 68.2 | N/A | 130 |
| Inside Enclosure | 65.7 | 74.1 | 60.2 | 69.1 | N/A | 120 |
| Outside Enclosure | 55.8 | 64.2 | 51.8 | 60.7 | N/A | 95 |
| Ambient | 26.6 | N/A | 26.1 | N/A | N/A | N/A |
| Duraton | 4hr 34min | N/A | 5hr 5min | N/A | N/A | N/A |
| JMW1100KB2400F01 | 90Vac/ 60Hz | 90Vac/ 60Hz(Tma=35 ) | 264Vac/60Hz | 264Vac/60Hz (Tma=35) | N/A | N/A |
| F2 | 90.5 | 99.1 | 56.5 | 64.9 | N/A | 130 |
| TH1 | 98.1 | 106.7 | 62 | 70.4 | N/A | 130 |
| CX1 | 83.7 | 92.3 | 59.3 | 67.7 | N/A | 100 |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LF1 | | 95.5 | 104.1 | 63.4 | 71.8 | N/A | 130 |
| CY2 | | 90.4 | 99.0 | 68 | 76.4 | N/A | 125 |
| CP2 | | 84.1 | 92.7 | 68.1 | 76.5 | N/A | 105 |
| LP5 | | 102.1 | 110.7 | 56.3 | 64.7 | N/A | 130 |
| LP3 | | 102.7 | 111.3 | 85.6 | 94.0 | N/A | 130 |
| PSU1 | | 79.0 | 87.6 | 72.8 | 81.2 | N/A | 105 |
| T1 Coil | | 91.6 | 100.2 | 82.5 | 90.9 | N/A | 110 |
| T1 Core | | 87.3 | 95.9 | 80.5 | 88.9 | N/A | 110 |
| CY3 | | 72.6 | 81.2 | 66.6 | 75.0 | N/A | 125 |
| Heatsink near QP1 | | 85.3 | 93.9 | 77.2 | 85.6 | N/A | N/A |
| Heat sink near QS1 | | 84.3 | 92.9 | 72.4 | 80.8 | N/A | N/A |
| LS1 | | 67.6 | 76.2 | 62.6 | 71.0 | N/A | 130 |
| LS2 | | 66.1 | 74.7 | 61.8 | 70.2 | N/A | 130 |
| Inside Enclosure | | 69.2 | 77.8 | 63.7 | 72.1 | N/A | 120 |
| Outside Enclosure | | 58.0 | 66.6 | 54 | 62.4 | N/A | 95 |
| Ambient | | 26.4 | N/A | 26.6 | N/A | N/A | N/A |
| Duraton | | 4hr 41min | N/A | 12hr 50min | N/A | N/A | N/A |
| temperature T of winding: | $t_1$ (°C) | $R_1$ ( Ω) | $t_2$ (°C) | $R_2$ ( Ω ) | T (°C) | allowed $T_{max}$ (°C) | insulation class |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| supplementary information: | | | | | | | |
| T shall not exceed (Tmax + Tamb - Tma), Tma: 30 °C | | | | | | | |

| 4.5.5 | **TABLE: Ball pressure test of thermoplastic parts** | | N/A |
|---|---|---|---|
| | allowed impression diameter (mm) ..... : | less than or equal to 2.0 | — |
| part | | test temperature ( °C) | impression diameter (mm) |
| | | | |
| supplementary information: | | | |
| | | | |

| 4.7 | **TABLE: resistance to fire** | | | | Pass |
|---|---|---|---|---|---|
| part | manufacturer of material | type of material | thickness (mm) | flammability class | Evidence |
| Enclosure | Sabic Innovative Plastics | 940(f1) | Min. 2.0 | V-0 | |
| Enclosure - alternate | Cheil Ind. | HN-1064(+) | Min. 2.0 | V-0 | |
| Enclosure - alternate | Cheil Ind. | HN-1064W(+) | Min. 2.0 | V-0 | |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| supplementary information: |
|---|
| UL Recognized component used, see appended table 1.5.1. |

| 5.1 | **TABLE: touch current measurement** | | Pass |
|---|---|---|---|
| Measured between: | Measured (mA) | Limit (mA) | Comments/Conditions |
| | | | |
| supplementary information: | | | |
| See clause 5.1 | | | |

| 5.2 | **TABLE: electric strength tests, impulse tests and voltage surge tests** | | Pass |
|---|---|---|---|
| Test voltage applied between: | Voltage shape (AC, DC, impulse, surge) | Test voltage (V) | Breakdown Yes / No |
| - | - | - | - |
| Functional: | | | |
| Test voltage applied between: | Voltage shape (AC, DC, impulse, surge) | Test voltage (V) | Breakdown Yes / No |
| - | - | - | - |
| Basic/supplementary: | | | |
| Test voltage applied between: | Voltage shape (AC, DC, impulse, surge) | Test voltage (V) | Breakdown Yes / No |
| Primary to GND after Humidity test | AC | 1803Vac | No |
| Primary to GND | AC | 1803Vac | No |
| <11CA15702> | N/A | N/A | N/A |
| Primary to GND after Humidity test | AC | 1803Vac | No |
| Primary to GND | AC | 1803Vac | No |
| <E300305-A33-CB-2, Amendment3> | N/A | N/A | N/A |
| Primary to GND | AC | 1803Vac | No |
| <E300305-A33-CB-4> | N/A | N/A | N/A |
| Primary to GND after humidity test | AC | 2885Vac | No |
| Reinforced: | | | |
| Test voltage applied between: | Voltage shape (AC, DC, impulse, surge) | Test voltage (V) | Breakdown Yes / No |
| Primary to Secondary circuit after Humidity test | AC | 3000Vac | No |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | |
|---|---|---|---|
| Primary to wrapped enclosure by metal foil after Humidity test | AC | 3000Vac | No |
| Primary to Secondary circuit | AC | 3000Vac | No |
| Primary to wrapped enclosure by metal foil | AC | 3000Vac | No |
| Transformer Primary winding to Secondary winding | AC | 3000Vac | No |
| Transformer Primary winding to Core(Secondary) | AC | 3000Vac | No |
| Transformer Insulation sheet one layer | AC | 3000Vac | No |
| Insulation sheet around Transformer | AC | 3000Vac | No |
| <11CA15702> | N/A | N/A | N/A |
| Primary to Secondary circuit after Humidity test | AC | 3000Vac | No |
| Primary to wrapped enclosure by metal foil after Humidity test | AC | 3000Vac | No |
| Primary to Secondary circuit | AC | 3000Vac | No |
| Primary to wrapped enclosure by metal foil | AC | 3000Vac | No |
| Transformer Primary winding to Secondary winding | AC | 3000Vac | No |
| Transformer Primary winding to Core(Secondary) | AC | 3000Vac | No |
| Transformer Insulation sheet one layer | AC | 3000Vac | No |
| Insulation sheet around Transformer | AC | 3000Vac | No |
| <E300305-A33-CB-2, Amendment3> | N/A | N/A | N/A |
| Primary to Secondary circuit | AC | 3000Vac | No |
| Primary to wrapped enclosure by metal foil | AC | 3000Vac | No |
| Transformer Primary winding to Secondary winding | AC | 3000Vac | No |
| Transformer Primary winding to Core(Secondary) | AC | 3000Vac | No |
| Transformer Insulation sheet one layer | AC | 3000Vac | No |
| Insulation sheet around Transformer | AC | 3000Vac | No |
| <E300305-A33-CB-4> | N/A | N/A | N/A |
| Primary to Secondary circuit after humidity test | AC | 4800Vac | No |
| Primary to wrapped enclosure by metal foil after humidity test | AC | 4800Vac | No |
| Optical Isolator after thermal cycling test | AC | 4800Vac | No |
| Optical Isolator after humidity test | AC | 4800Vac | No |
| supplementary information: | | | |
| N/A | | | |

| 5.3 | **TABLE: fault condition tests** | | | | | Pass |
|---|---|---|---|---|---|---|
| | ambient temperature ( ° C) ..... : | | | | see results | — |
| | Power source for EUT: Manufacturer, model/type, output rating ..... : | | | | See results | — |
| Component No. | Fault | Supply voltage (V) | Test time | Fuse # | Fuse current (A) | Observation |
| JPW1100KA2400F01 | N/A | N/A | N/A | N/A | N/A | N/A |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1. BD1(pin1-2) | Short circuit | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuses(F1,F2) opened. NC, NT, NB, Fuse: Type SS-5 by save fusetech. |
| 2. BD1(pin1-2) | Short circuit | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuses(F1,F2) opened. NC, NT, NB, Fuse: Type 392 by wickmann. |
| 3. BD1(pin3-4) | Short circuit | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuses(F1,F2) opened. NC, NT, NB, Fuse: Type SS-5 by save fusetech. |
| 4. BD1(pin3-4) | Short circuit | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuses(F1,F2) opened. NC, NT, NB, Fuse: Type 392 by wickmann. |
| 5. C1 | Short circuit | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuses(F1,F2) opened. NC, NT, NB, Fuse: Type SS-5 by save fusetech. |
| 6. C1 | Short circuit | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuses(F1,F2) opened. NC, NT, NB, Fuse: Type 392 by wickmann. |
| 7. QP1(pin1-2) | Short circuit | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuses(F1,F2) opened. CD(QP1, UP1), NC, NT, NB, Fuse: Type SS-5 by save fusetech. |
| 8. QP1(pin1-2) | Short circuit | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuses(F1,F2) opened. CD(QP1, UP1), NC, NT, NB, Fuse: Type 392 by wickmann. |
| 9. QP1(pin2-3) | Short circuit | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuses(F1,F2) opened. NC, NT, NB, Fuse: Type SS-5 by save fusetech. |
| 10. QP1(pin2-3) | Short circuit | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuses(F1,F2) opened. NC, NT, NB, Fuse: Type 392 by wickmann. |
| 11. QP3(pin1-2) | Short circuit | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuses(F1,F2) opened. CD(QP3, UP2, R2), NC, NT, NB, Fuse: Type SS-5 by save fusetech. |
| 12. QP3(pin1-2) | Short circuit | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuses(F1,F2) opened. CD(QP3, UP2, R2), NC, NT, NB, Fuse: Type 392 by wickmann. |
| 13. QP3(pin1-3) | Short circuit | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuses(F1,F2) opened. NC, NT, NB, Fuse: Type SS-5 by save |

| IEC 60950-1 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | fusetech. |
| 14. QP3(pin1-3) | Short circuit | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuses(F1,F2) opened. NC, NT, NB, Fuse: Type 392 by wickmann. |
| 15. QS1(pin2-3) | Short circuit | 264Vac | 10min | F1,F2 | 3.15 | Immediately internal protection operated. Input current: 0.052A. NC, NT, NB. |
| 16. PSU1(pin1-2) | Short circuit | 264Vac | 10min | F1,F2 | 3.15 | CD(RS1, US1). FI: 0.049A. NC, NT, NB. |
| 17. PSU1(pin1-2) | Short circuit | 264Vac | 10min | F1,F2 | 3.15 | CD(RS1, US1). FI: 0.049A. NC, NT, NB. |
| 18. PSU1(pin1-2) | Short circuit | 264Vac | 10min | F1,F2 | 3.15 | CD(RS1, US1). FI: 0.049A. NC, NT, NB. |
| 19. PSU1(pin3-4) | Short circuit | 264Vac | 10min | F1,F2 | 3.15 | Immediately internal protection operated. FI: 0.048A. NC, NT, NB. |
| 20. US1(pin3-4) | Short circuit | 264Vac | 10min | F1,F2 | 3.15 | Immediately internal protection operated. FI: 0.181A. NC, NT, NB. |
| 21. C10 | Short circuit | 264Vac | 10min | F1,F2 | 3.15 | Immediately internal protection operated. FI: 0.072A. NC, NT, NB. |
| 22. D1 | Short circuit | 264Vac | 10min | F1,F2 | 3.15 | Normal operated. Input current: 0.465A. NC, NT, NB. |
| 23. UP1(pin1-4) | Short circuit | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuses(F1,F2) opened. CD(QP1), NC, NT, NB, Fuse: Type SS-5 by save fusetech. |
| 24. UP1(pin1-4) | Short circuit | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuses(F1,F2) opened. CD(QP1), NC, NT, NB, Fuse: Type 392 by wickmann. |
| 25. UP1(pin6-8) | Short circuit | 264Vac | 4hr 40min | F1,F2 | 3.15 | CD(RP10). FI: 0.616A, Temp. stabilized at T1 coil: 79.6°C, T1 core: 79.1°C (Amb:26.5°C), NC, NT, NB. |
| 26. UP1(pin6-8) | Short circuit | 264Vac | 1hr 40min | F1,F2 | 3.15 | CD(RP10). FI: 0.616A, Temp. stabilized at T1 coil: 123.5°C, T1 core: 128.8°C (Amb:28.1°C), NC, NT, NB. |
| 27. UP1(pin6-8) | Short circuit | 264Vac | 2hr 34min | F1,F2 | 3.15 | CD(RP10). FI: 0.615A, Temp. stabilized at T1 coil: 113.5°C, T1 core: 110.8°C |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

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| | | | | | | (Amb:28.3°C), NC, NT, NB. |
| 28. UP2(pin2-6) | Short circuit | 264Vac | 10min | F1,F2 | 3.15 | Immediately internal protection operated. FI: 0.049A. NC, NT, NB. |
| 29. UP2(pin1-2) | Short circuit | 264Vac | 10min | F1,F2 | 3.15 | Immediately internal protection operated. FI: 0.050A. NC, NT, NB. |
| 30. UP2(pin1-4) | Short circuit | 264Vac | 4min | F1,F2 | 3.15 | After 4 minute operation, fuses(F1,F2) opened. CD(QP3, UP2), NC, NT, NB, Fuse: Type SS-5 by save fusetech. |
| 31. UP2(pin1-4) | Short circuit | 264Vac | 3min | F1,F2 | 3.15 | After 4 minute operation, fuses(F1,F2) opened. CD(QP3, UP2), NC, NT, NB, Fuse: Type 392 by wickmann. |
| 32. UP2(pin4-5) | Short circuit | 264Vac | 10min | F1,F2 | 3.15 | Immediately internal protection operated. FI: 0.048A. NC, NT, NB. |
| 33. T1(pin11-14) | Short circuit | 264Vac | 10min | F1,F2 | 3.15 | Immediately internal protection operated. FI: 0.057A. NC, NT, NB. |
| 34. C8(+) to GND for JPW1100KA1200F01 | Overload | 264Vac | 7hr 31min | F1,F2 | 3.15 | CT at 12.0 A output load current, Temp. stabilized at T1 coil: 127.7°C, T1 core: 145.0°C (Amb:26.2°C), and Internal protection circuit operated, and short circuit finally, NC, NT, NB. |
| 35. C8(+) to GND for JPW1100KA1500F01 | Overload | 264Vac | 7hr 19min | F1,F2 | 3.15 | CT at 11.0 A output load current, Temp. stabilized at T1 coil: 136.5°C, T1 core: 123.9°C (Amb:26.5°C), and Internal protection circuit operated, and short circuit finally, NC, NT, NB. |
| 36. C8(+) to GND for JPW1100KA1800F01 | Overload | 264Vac | 6hr 21min | F1,F2 | 3.15 | CT at 8.5 A output load current, Temp. stabilized at T1 coil: 115.1°C, T1 core: 117.3°C (Amb:26.8°C), and Internal protection circuit operated, and short circuit finally, NC, NT, NB. |
| 37. C8(+) to GND for JPW1100KA2400F01 | Overload | 264Vac | 5hr 59min | F1,F2 | 3.15 | CT at 6.0 A output load current, Temp. stabilized at T1 coil: 109.9°C, T1 core: 103.6°C (Amb:26.2°C), and |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

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| | | | | | | Internal protection circuit operated, and short circuit finally, NC, NT, NB. |
| 38. QS1, #2 to 3 | Short | 240Vac | N/A | F1,F2 | 3.15 | SELV Reliability Test, 2.74 Vdc between T1, # 11, 12, 13 to QS1, #3 after short. |
| <11CA15702> | N/A | N/A | N/A | N/A | N/A | N/A |
| JPW1100KB1600F01 | N/A | N/A | N/A | N/A | N/A | N/A |
| UP1 pin 6-8 | Short | 264Vac | 10min | F1,F2 | 3.15A | FI:0.593A, NC,NT,NB |
| UP1 pin1-4 | Short | 264Vac | 10min | F1,F2 | 3.15A | FI:0.593A, NC,NT,NB |
| UP1 pin 7-8 | Short | 264Vac | 1s | F1,F2 | 3.15A | FI:0A, Fuse Opened(F1,F2),CD(UP1, QP1) by 392 |
| UP1 pin 7-8 | Short | 264Vac | 1s | F1,F2 | 3.15A | FI:0A, Fuse Opened(F1,F2),CD(UP1, QP1) by SS-5 |
| UP2 pin 6-5 | Short | 264Vac | 1s | F1,F2 | 3.15A | FI:0A, Fuse Opened(F1,F2),CD(UP1, QP1) by 392 |
| UP2 pin 6-5 | Short | 264Vac | 1s | F1,F2 | 3.15A | FI:0A, Fuse Opened(F1,F2),CD(UP1, QP1) by SS-5 |
| UP2 pin 6-4 | Short | 264Vac | 10min | F1,F2 | 3.15A | FI:0.149A, IP, NC,NT,NB |
| C8(+) to GND for JPW1100KB1200F01 | Overload | 90Vac | 8hrs | F1,F2 | 3.15A | The highest load ; 7.7A, Temperature stabilized ; T1 coil ; 99.5degreeC, T1 core; 102.7 degreeC, Ambient ; 25.5 degreeC, Immediately IP after short circuit, FI=0.322A, NC,NT,NB |
| C8(+) to GND for JPW1100KB1300F01 | Overload | 90Vac | 8hrs | F1,F2 | 3.15A | The highest load ; 7.5A, Temperature stabilized ; T1 coil ; 87.1degreeC, T1 core; 97.4 degreeC, Ambient ; 25.2degreeC, Immediately IP after short circuit, FI=0.349A, NC,NT,NB |
| C8(+) to GND for JPW1100KB1500F01 | Overload | 90Vac | 8hrs | F1,F2 | 3.15A | The highest load ; 6.8A, Temperature stabilized ; T1 coil ; 117.2degreeC, T1 core; 130.3 degreeC, |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

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| | | | | | | Ambient ; 26.4 degreeC, Immediately IP after short circuit, FI=0.227A, NC,NT,NB |
| C8(+) to GND for JPW1100KB1600F01 | Overload | 90Vac | 8hrs | F1,F2 | 3.15A | The highest load ; 6.5A, Temperature stabilized ; T1 coil ; 113.6degreeC, T1 core; 96.8 degreeC, Ambient ; 25.7degreeC, Immediately IP after short circuit, FI=0.328A, NC,NT,NB |
| <E300305-A33-CB-2, Amendment3>, 11CA37964 | N/A | N/A | N/A | N/A | N/A | N/A |
| QP1 pin 1-2 | Short | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuse(F1,F2) opened. CD(QP1, UP1) , NC,NT,NB, fuse type SS-5 by save fusetech |
| QP1 pin 1-2 | Short | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuse(F1,F2) opened. CD(QP1, UP1) , NC,NT,NB, fuse type 392 by wickmann |
| QP1 pin 2-3 | Short | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuse(F1,F2) opened. NC,NT,NB, fuse type SS-5 by save fusetech |
| QP1 pin 2-3 | Short | 264Vac | 1sec | F1,F2 | 3.15 | Immediately fuse(F1,F2) opened. NC,NT,NB, fuse type 392 by wickmann |
| C8(+) to GND for JPW1100KB1900F01 | Overload | 90Vac | 5hrs | F1,F2 | 3.15A | The highest load ; 6A, Temperature stabilized ; T1 coil ; 121.7 degreeC, T1 core; 125.8 degreeC, Ambient ; 24.4 degreeC, Immediately IP after short circuit, FI=0.153A, NC,NT,NB |
| C8(+) to GND for JPW1100KB2400F01 | Overload | 90Vac | 8hrs | F1,F2 | 3.15A | The highest load ; 5A, Temperature stabilized ; T1 coil ; 130.8degreeC, T1 core; 105.7 degreeC, Ambient ; 25.2degreeC, Immediately IP after short circuit, FI=0.15A, NC,NT,NB |
| <E300305- | N/A | N/A | N/A | N/A | N/A | N/A |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | | | | |
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| A33-CB-3> | | | | | | |
| BD pin 1-2 | Short | 264Vac | 1s | F1,F2 | F1;7A, F2;3.15A | F2(392 Wickmann)open, NC,NT,NB |
| BD pin 1-2 | Short | 264Vac | 1s | F1,F2 | F1;7A, F2;3.15A | F2(SS-5 Save fusetech)open, NC,NT,NB |
| BD pin 3-4 | Short | 264Vac | 1s | F1,F2 | F1;7A, F2;3.15A | F2(392 Wickmann)open, NC,NT,NB |
| BD pin 3-4 | Short | 264Vac | 1s | F1,F2 | F1;7A, F2;3.15A | F2(SS-5 Save fusetech)open, NC,NT,NB |
| QP1 pin 2-3 | Short | 264Vac | 1s | F1,F2 | F1;7A, F2;3.15A | F2(392 Wickmann)open, NC,NT,NB |
| QP1 pin 2-3 | Short | 264Vac | 1s | F1,F2 | F1;7A, F2;3.15A | F2(SS-5 Save fusetech)open, NC,NT,NB |
| C1 | Short | 264Vac | 1s | F1,F2 | F1;7A, F2;3.15A | F2(392 Wickmann)open, NC,NT,NB |
| C1 | Short | 264Vac | 1s | F1,F2 | F1;7A, F2;3.15A | F2(SS-5 Save fusetech)open, NC,NT,NB |
| QP1 pin 1-2 | Short | 264Vac | 1s | F1,F2 | F1;7A, F2;3.15A | F2(392 Wickmann)open, NC,NT,NB |
| QP1 pin 1-2 | Short | 264Vac | 1s | F1,F2 | F1;7A, F2;3.15A | F2(SS-5 Save fusetech)open, NC,NT,NB |
| QP3 pin 1-2 | Short | 264Vac | 1s | F1,F2 | F1;7A, F2;3.15A | F2(392 Wickmann)open, NC,NT,NB |
| QP3 pin 1-2 | Short | 264Vac | 1s | F1,F2 | F1;7A, F2;3.15A | F2(SS-5 Save fusetech)open, NC,NT,NB |
| QP3 pin 1-3 | Short | 264Vac | 1s | F1,F2 | F1;7A, F2;3.15A | F2(392 Wickmann)open, NC,NT,NB |
| QP3 pin 1-3 | Short | 264Vac | 1s | F1,F2 | F1;7A, F2;3.15A | F2(SS-5 Save fusetech)open, NC,NT,NB |
| supplementary information: | | | | | | |

| C.2 | **TABLE: transformers** | | | | | | Pass |
|---|---|---|---|---|---|---|---|
| Loc. | Tested insulation | Working voltage peak /V (2.10.2) | Working voltage rms /V (2.10.2) | Required electric strength (5.2) | Required clearance / mm (2.10.3) | Required creepage distance / mm (2.10.4) | Required distance thr. insul. (2.10.5) |
| | | | | | | | |
| Loc. | Tested insulation | | | Test voltage / V | Measured clearance / mm | Measured creepage dist./mm | Measured distance thr. insul / mm; number of layers |
| | | | | | | | |

| IEC 60950-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

| Transformer type number | Enclosure - Miscellaneous ID |
|---|---|
| Transformer_ 3025579001A | 7-7 |
| Transformer_ 3025579002A | 7-8 |
| supplementary information: | |
| | |

# Enclosure

## National Differences

**Austria****
**Belgium****
**China***
**Czech Republic****
**Denmark**
**Finland**
**France****
**Germany**
**Greece****
**Group**
**Hungary****
**Ireland**
**Israel**
**Italy****
**Japan***
**Korea**
**Netherlands****
**Norway**
**Poland****
**Portugal****
**Singapore***
**Slovakia****
**Slovenia****
**Spain**
**Sweden**
**Switzerland**
**USA / Canada**
**United Kingdom**

* No National Differences Declared
** Only Group Differences

| IEC 60950-1:2005 | | | |
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| SubClause | Difference + Test | Result - Remark | Verdict |

| **Denmark - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009** | | | |
|---|---|---|---|
| 1.2.4.1 | In Denmark, certain types of Class I appliances (see sub-clause 3.2.1.1) may be provided with plug not establishing earthing continuity when inserted into Danish socket-outlets. | | N/A |
| 1.7.5 | In Denmark, socket-outlets for providing power to other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment. For stationary equipment, the socket-outlet shall be in accordance with Standard Sheet DK 1-1b or DK 1-5a. | | N/A |
| 1.7.5 | For CLASS II EQUIPMENT the socket outlet shall be in accordance with Standard Sheet DKA 1-4a. (Heavy Current Regulations, Section 107-2-D1) | | N/A |
| 3.2.1.1 | Supply cord of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1.<br><br>CLASS I EQUIPMENT provided with socket-outlets with earth contact or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.<br><br>If poly-phase equipment and single-phase equipment having a RATED CURRENT exceeding 13 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current Regulations, Section 107-2-D1 or EN 60309-2. | | N/A |

| IEC 60950-1:2005 | | | |
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| SubClause | Difference + Test | Result - Remark | Verdict |
| **Finland - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009** | | | |
| 1.5.7.1 | Resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.1. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2. | | N/A |
| 1.5.9.4 | The third dashed sentence is applicable only to equipment as defined by annex, 6.1.2.2. | | N/A |
| 1.7.2.1 | CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text shall be: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan" | Operating instructions and warnings are written in an accepted language of the certain country. | N/A |
| 2.3.2 | Requirements according to this annex 6.1.2.1 and 6.1.2.2 apply. | | N/A |
| 2.10.5.13 | Requirements according to this annex 6.1.2.1 and 6.1.2.2 apply. | | N/A |
| 5.1.7.1 | Touch current measurement results exceeding 3,5 mA r.m.s are permitted only for the following equipment:<br>- STATIONARY PLUGGABLE EQUIPMENT TYPE A that:<br>(1) is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and<br>(2) has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and<br>(3) is provided with instructions for the installation | | N/A |

| IEC 60950-1:2005 | | | |
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| SubClause | Difference + Test | Result - Remark | Verdict |
| | of that conductor by a SERVICE PERSON;<br>- STATIONARY PLUGGABLE EQUIPMENT TYPE B<br>- STATIONARY PERMANENTLY CONNECTED EQUIPMENT | | |
| 6.1.2.1 | Add the following text between the first and second paragraph of the compliance clause:<br>If this insulation is solid, including insulation forming part of a component, it shall at least consist of either<br>- two layers of thin sheet material, each of which shall pass the electric strength test below, or<br>- one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below.<br><br>Alternatively for components, there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition<br>- passes the tests and inspection criteria of 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and<br>- is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV.<br><br>It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b).<br><br>It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994 (EN 60384-14:2005), subclass Y2.<br>A capacitor classified Y3 according to EN 132400 [EN 60384-14:2005], may bridge this insulation under the following conditions:<br>- the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 132400 [EN 60384-14], which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV | | N/A |

| IEC 60950-1:2005 | | | |
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| SubClause | Difference + Test | Result - Remark | Verdict |
| | defined in EN 60950-1:2006, 6.2.2.1;<br>- the additional testing shall be performed on all the test specimens as described in EN 132400 [EN 60384-14];<br>- the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400 [EN 60384-14], in the sequence of tests as described in EN 132400 [EN 60384-14]. | | |
| 6.1.2.2 | The exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT, PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication center, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON. | | N/A |
| 7.2 | Requirements according to this annex 6.1.2.1 and 6.1.2.2 apply with the term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM. | | N/A |
| **Germany - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009** | | | |
| 1.7.2.1 | According to GPSG, section 2, clause 4: If certain rules on the use, supplementation or maintenance of an item of technical work equipment or ready-to-use commodity must be observed in order to guarantee safety and health, instructions for use in German must be supplied when it is brought into circulation. | | N/A |

| IEC 60950-1:2005 | | | |
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| SubClause | Difference + Test | Result - Remark | Verdict |
| **Group - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009** | | | |
| 1.1.1 | Replace the text of NOTE 3 by the following:<br>NOTE 3 The requirements of EN60065 may also be used to meet safety requirements for multimedia equipment. See IEC Guide 112, Guide on the Safety of Multimedia Equipment. For television sets, EN60065 applies. | | N/A |
| 1.2.3 | Add the following definition.<br>1.2.3.Z1 Portable Sound System<br>Small battery powered audio equipment<br>-whose prime purpose is to listen to recorded or boardcasted sound; and<br>-that uses headphones or earphones that can be worn in or on or around the ears; and<br>-that allows the user to walk around<br>NOTE: Examples are mini-disk or CD players, MP3 audio players or similar equipment. | | N/A |
| 1.5.1 | Add the following NOTE Z1: The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC | | N/A |
| 1.7.2.1 | Delete NOTE Z1 and addd the following paragraph at the end of the subclause:<br>In addition, for a PORTABLE SOUND SYSTEM, the instructions shall include a a warning that excessive sound pressure from earphones and headphones can cause hearing loss. | | N/A |
| 2.7.1 | Replace the subclause as follows:<br>Basic requirements<br>To protect against excessive current, short-circuits and earth faults in PRIMARY CIRCUITS, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c):<br>a) except as detailed in b) and c), protective devices necessary to comply with the requirements | | Pass |

| IEC 60950-1:2005 | | | |
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| SubClause | Difference + Test | Result - Remark | Verdict |
| | of 5.3 shall be included as parts of the equipment;<br>b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation;<br>c) it is permitted for PLUGGABLE EQUIPMENT TYPE B or PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions.<br>If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for PLUGGABLE EQUIPMENT TYPE A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet. | | |
| 2.7.2 | Void | | N/A |
| 3.2.3 | Delete the NOTE and conduit sizes in parentheses in Table 3A | | N/A |
| 3.2.5.1 | Replace:<br>"60245 IEC 53" by "H05 RR-F"<br>"60227 IEC 52" by "H03 VV-F or H03 VVH2-F"<br>"60227 IEC 53" by "H05 VV-F or H05 VVH2-F"<br><br>In Table 3B, replace the first four lines by the following:<br>Up to and including 6 0.75 a)<br>Over 6 up to and including 10 0.75 b) 1.0<br>Over 10 up to and including 16 1.0 c) 1.5<br><br>In the conditions applicable to table 3B, delete the words "in some countries" in condition a).<br>In Note 1, applicable Table 3B, to delete the second sentence. | | N/A |
| 3.3.4 | In table 3D, delete the fourth line: conductor | | N/A |

| IEC 60950-1:2005 | | | |
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| SubClause | Difference + Test | Result - Remark | Verdict |
| | sizes for 10 to 13 A, and replace with the following: "Over 10 up to and including 16 1.5 to 2.5 1.5 to by 4"<br><br>Delete the fifth line: conductor sizes for 13 to 16A. | | |
| 4.3.13.6 | Replace the existing NOTE by the following: NOTE Z1 Attention is drawn to 1999/519/EC: Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz to 300 GHz and 2006/25/EC: Directive on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (artificial optical radiation). Standards taking into account this Recommendation which demonstrate compliance with the applicable EU Directive are indicated in the OJEC. | | N/A |
| H | Replace the last paragraph of this annex by:<br>At any point 10 cm from the surface of the OPERATOR ACCESS AREA, the dose rate shall not exceed 1 µSv/h (0,1 mR/h) (see NOTE). Account is taken of the background level.<br>Replace the notes as follows:<br>NOTE - These values appear in Directive 96/29/Euratom.<br>Delete NOTE 2. | | N/A |
| Zx | Protection against excessive sound pressure from personal music players | | N/A |
| Zx.1 | General - This sub-clause specifies requirements for protection against excessive sound pressure from personal music players that are closely coupled to the ear. It also specifies requirements for earphones and headphones intended for use with personal music players.<br><br>A personal music player is a portable equipment for personal use, that:<br>- is designed to allow the user to listen to recorded | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| | or broadcast sound or video; and<br>- primarily uses headphones or earphones that can be worn in or on or around the ears; and<br>- allows the user to walk around while in use.<br><br>NOTE 1 Examples are hand-held or body-worn portable CD players, MP3 audio players, mobile phones with MP3 type features, PDA's or similar equipment.<br><br>A personal music player and earphones or headphones intended to be used with personal music players shall comply with the requirements of this sub-clause.<br>The requirements in this sub-clause are valid for music or video mode only.<br><br>The requirements do not apply:<br>- while the personal music player is connected to an external amplifier; or<br>- while the headphones or earphones are not used.<br><br>NOTE 2 An external amplifier is an amplifier which is not part of the personal music player or the listening device, but which is intended to play the music as a standalone music player.<br><br>The requirements do not apply to:<br>- hearing aid equipment and professional equipment;<br><br>NOTE 3 Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment.<br>- analogue personal music players (personal music players without any kind of digital processing of the sound signal) that are brought to the market before the end of 2015.<br><br>NOTE 4 This exemption has been allowed because this technology is falling out of use and it is expected that within a few years it will no longer exist. This exemption will not be extended to other technologies.<br><br>For equipment which is clearly designed or intended for use by young children, the limits of EN | | |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| | 71-1 apply. | | |
| Zx.2 | Equipment Requirements - No safety provision is required for equipment that complies with the following:<br>- equipment provided as a package (personal music player with its listening device), where the acoustic output LAeq,T is ≤ 85 dBA measured while playing the fixed “programme simulation noise” as described in EN 50332-1; and<br>- a personal music player provided with an analogue electrical output socket for a listening device, where the electrical output is ≤ 27 mV measured as described in EN 50332-2, while playing the fixed “programme simulation noise” as described in EN 50332-1.<br><br>NOTE 1 Wherever the term acoustic output is used in this clause, the 30 s A-weighted equivalent sound pressure level LAeq,T is meant. See also Zx.5 and Annex Zx.<br><br>All other equipment shall:<br>a) protect the user from unintentional acoustic outputs exceeding those mentioned above; and<br>b) have a standard acoustic output level not exceeding those mentioned above, and automatically return to an output level not exceeding those mentioned above when the power is switched off; and<br>c) provide a means to actively inform the user of the increased sound pressure when the equipment is operated with an acoustic output exceeding those mentioned above. Any means used shall be acknowledged by the user before activating a mode of operation which allows for an acoustic output exceeding those mentioned above. The acknowledgement does not need to be repeated more than once every 20 h of cumulative listening time; and<br><br>NOTE 2 Examples of means include visual or audible signals. Action from the user is always required.<br><br>NOTE 3 The 20 h listening time is the accumulative | | N/A |

| IEC 60950-1:2005 | | | |
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| SubClause | Difference + Test | Result - Remark | Verdict |
| | listening time, independent how often and how long the personal music player has been switched off.<br>d) have a warning as specified in Zx.3; and<br>e) not exceed the following:<br>1) equipment provided as a package (player with Its listening device), the acoustic output shall be ≤ 100 dBA measured while playing the fixed “programme simulation noise” described in EN 50332-1; and<br>2) a personal music player provided with an analogue electrical output socket for a listening device, the electrical output shall be ≤ 150 mV measured as described in EN 50332-2, while playing the fixed “programme simulation noise” described in EN 50332-1. For music where the average sound pressure (long term LAeq,T) measured over the duration of the song is lower than the average produced by the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. In this case T becomes the duration of the song.<br><br>NOTE 4 Classical music typically has an average sound pressure (long term LAeq,T) which is much lower than the average programme simulation noise. Therefore, if the player is capable to analyse the song and compare it with the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA.<br>For example, if the player is set with the programme simulation noise to 85 dBA, but the average music level of the song is only 65 dBA, there is no need to give a warning or ask an acknowledgement as long as the average sound level of the song is not above the basic limit of 85 dBA. | | |
| Zx.3 | Warning - The warning shall be placed on the equipment, or on the packaging, or in the instruction manual and shall consist of the following:<br>- the symbol of Figure 1 (IEC 60417-6044) with a minimum height of 5 mm; and<br>- the following wording, or similar: | | N/A |

| IEC 60950-1:2005 | | | |
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| SubClause | Difference + Test | Result - Remark | Verdict |
| | "To prevent possible hearing damage, do not listen at high volume levels for long periods." Alternatively, the entire warning may be given through the equipment display during use, when the user is asked to acknowledge activation of the higher level | | |
| Zx.4 | Requirements for Listening devices (headphones and earphones) | | N/A |
| Zx.4.1 | Wired listening devices with analogue input<br>With 94 dBA sound pressure output LAeq,T, the input voltage of the fixed "programme simulation noise" described in EN 50332-2 shall be ≥ 75 mV.<br><br>This requirement is applicable in any mode where the headphones can operate (active or passive), including any available setting (for example built-in volume level control).<br><br>NOTE The values of 94 dBA – 75 mV correspond with 85dBA – 27 mV and 100 dBA – 150 mV. | | N/A |
| Zx.4.2 | Wired listening devices with digital input<br>With any playing device playing the fixed "programme simulation noise" described in EN 50332-1 (and respecting the digital interface standards, where a digital interface standard exists that specifies the equivalent acoustic level), the acoustic output LAeq,T of the listening device shall be ≤ 100 dBA.<br><br>This requirement is applicable in any mode where the headphones can operate, including any available setting (for example built-in volume level control, additional sound feature like equalization, etc.).<br><br>NOTE An example of a wired listening device with digital input is a USB headphone. | | N/A |
| Zx.4.3 | Wireless listening devices<br>In wireless mode: | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| | - with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and<br>- respecting the wireless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and<br>- with volume and sound settings in the listening device (for example built-in volume level control, additional sound feature like equalization, etc.)set to the combination of positions that maximize the measured acoustic output for the abovementioned programme simulation noise, the acoustic output LAeq,T of the listening device shall be ≤ 100 dBA.<br><br>NOTE An example of a wireless listening device is a Bluetooth headphone. | | |
| Zx.5 | Measurement Methods<br>Measurements shall be made in accordance with EN 50332-1 or EN 50332-2 as applicable. Unless stated otherwise, the time interval T shall be 30 s.<br><br>NOTE Test method for wireless equipment provided without listening device should be defined. | | N/A |

| **Ireland - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009** | | | |
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| 4.3.6 | DIRECT PLUG-IN EQUIPMENT is known as plug similar devices. Such devices shall comply with Statutory Instrument 526:1997 - National Standards Authority of Ireland (Section 28) (Electrical plugs, plug similar devices and sockets for domestic use) Regulations, 1997. | | N/A |

| IEC 60950-1:2005 | | | |
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| SubClause | Difference + Test | Result - Remark | Verdict |
| **Israel - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009** | | | |
| 1.6.1 | Add Note: This clause is applicable subject to the Electricity Law, 1954, its regulations and revisions. | | N/A |
| 1.7 | Add: Sub-clause 1.7.201 shall be added at the beginning of the clause. | | N/A |
| 1.7.2.1 | Add: All the instructions and warnings related to safety shall also be written in the Hebrew language. | | N/A |
| 1.7.201 | The marking in the Hebrew language shall be in accordance with the Consumer Protection Order (Marking of goods), 1983. In addition, the marking required by clause 1.7.1, the following details shall be marked in the Hebrew language. The details shall be marked on the apparatus or on its package, or on a label properly attached to the apparatus or on the package, by bonding or sewing, in a manner that the label cannot be easily removed.<br>1) name of the apparatus and its commercial designation;<br>2) Manufacturer's name and address. If the apparatus is imported, the importer's name and address;<br>3) Manufacturer's registered trademark,if any;<br>4) Name of the model and serial number, if any;<br>5) country of manufacturer | | N/A |
| 2.9.4 | Add: Seven means of projects against electrocution are permitted according to the Electricity Law, 1954, and the Electricity Regulations (Earthing and means of protection against electricity of voltages up to 1,000V) 1991. The seven are<br>1) TN-S or TN-C-S<br>2) TT<br>3) IT<br>4) Isolated Transformer | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| | 5) Safety extra low voltage (SELV or ELV)<br>6) Residual current circuit breaker (30 ma = 1delta)<br>7) reinforced insulation; double insulation (Class II) | | |
| 2.201 | Add: Prior to carrying out the tests in accordance with the clauses of this Standard, the compliance of the apparatus with the relevant requirements specified in the appropriate part of the standard series SI 961, shall be checked. The apparatus shall meet the requirements in the appropriate part of the standard series SI 961. If there are components of the apparatus for the prevention of electromagnetic interference, these components shall not reduce the safety level of the apparatus as required by this standard. | | N/A |
| 3.2.1.1 | Add after the note: The feed plug shall comply with the requirements of Israel Standard SI 32 Part 1.1. | | N/A |
| 3.2.1.2 | Add: At the end of the first paragraph add the following note: At the time of issue of the standard, there is no Israel Standard for connection accessories to d.c. | | N/A |

| IEC 60950-1:2005 | | | |
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| SubClause | Difference + Test | Result - Remark | Verdict |

| **Korea - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009** | | | |
|---|---|---|---|
| 1.5.101 | Plugs for the connection of the apparatus to the mains supply shall comply with the Korean requirement (KSC 8305) | Appliance inlet provided for models; a detachable power supply cord in compliance with national requirements will be provided by the local distributor. | N/A |
| 8 | EMC - The apparatus shall comply with the relevant CISPR standards | This test report covers safety evaluation only according to IEC60950-1; EMC testing to be covered by separate test report. | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| **Norway - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009** | | | |
| 1.2.13.14 | Requirements according to this annex 1.7.2.1 and 7.3 apply. | | N/A |
| 1.5.7.1 | Resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.2. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2. | | N/A |
| 1.5.8 | Due to the IT power system used (see annex V, figure V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V). | Rated min. 250 Vac | Pass |
| 1.5.9.4 | The third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex. | | N/A |
| 1.7.2.1 | CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text shall be: "Apparatet må tilkoples jordet stikkontakt" | Operating instructions and warnings are written in an accepted language of the certain country. | N/A |
| 1.7.2.1 | In Norway, the screen of the cable distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation need to be isolated from the screen of a cable distribution system. It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by e.g. a retailer. | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| | The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in:<br>"Equipment connected to the protective earthing of the building installation through the mains connection or through other equipment with a connection to protective earthing - and to a cable distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a cable distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)."<br>NOTE: In Norway, due to regulation for installations of cable distribution systems, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min.<br><br>Translation to Norwegian (the Swedish text will also be accepted in Norway): “Utstyr som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr - og er tilkoplet et kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av utstyret til kabel-TV nettet installeres en galvanisk isolator mellom utstyret og kabel-TV nettet." | | |
| 2.2.4 | Requirements according to this annex, 1.7.2.1, 6.1.2.1 and 6.1.2.2 apply. | | N/A |
| 2.3.2 | Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply. | | N/A |
| 2.3.4 | Requirements according to this annex, 1.7.2.1, 6.1.2.1 and 6.1.2.2 apply. | | N/A |
| 2.10.5.13 | Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply. | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| 5.1.7.1 | TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s are permitted only for the following equipment:<br>- STATIONARY PLUGGABLE EQUIPMENT TYPE A that:<br>(1) is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and<br>(2) has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and<br>(3) is provided with instructions for the installation of that conductor by a SERVICE PERSON;<br>- STATIONARY PLUGGABLE EQUIPMENT TYPE B<br>- STATIONARY PERMANENTLY CONNECTED EQUIPMENT | | N/A |
| 6.1.2.1 | Add the following text between the first and second paragraph of the compliance clause:<br>If this insulation is solid, including insulation forming part of a component, it shall at least consist of either<br>- two layers of thin sheet material, each of which shall pass the electric strength test below, or<br>- one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below.<br><br>Alternatively for components, there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition<br>- passes the tests and inspection criteria of 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and<br>- is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV. | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| | It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b).<br><br>It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994, subclass Y2.<br>A capacitor classified Y3 according to EN 123400 [EN 60384-14:2005], may bridge this insulation under the following conditions:<br>- the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 132400 [EN 60384-14], which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1:2006, 6.2.2.1;<br>- the additional testing shall be performed on all the test specimens as described in EN 132400 [EN 60384-14];<br>- the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400 [EN 60384-14], in the sequence of tests as described in EN 132400 [EN 60384-14.] | | |
| 6.1.2.2 | The exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT and PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON. | | N/A |
| 7.2 | Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply with the term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM. | | N/A |
| 7.3 | Refer to EN 60728-11:2005 for installation conditions | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| 7.3 | Requirements according to this annex 1.2.13.14 and 1.7.2.1 apply. | | N/A |

| **Spain - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009** | | | |
|---|---|---|---|
| 3.2.1.1 | Supply cords of single-phase equipment having a rated current not exceeding 10A shall be provided with a plug according to UNE 20315:1994. Supply cords of single-phase equipment having a rated current not exceeding 2.5A shall be provided with a plug according to UNE-EN 50075:1993. CLASS 1 EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules, shall be provided with a plug in accordance with standard UNE 20315:1994. If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2. | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| **Sweden - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009** | | | |
| 1.2.13.14 | Requirements according to this annex 1.7.2.1 and 7.3 apply. | | N/A |
| 1.5.7.1 | Resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.2. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2. | | N/A |
| 1.5.9.4 | The third dashed sentence is applicable only to equipment as defined by this annex, 6.1.2.2 | | N/A |
| 1.7.2.1 | CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text shall be:"Apparaten skall anslutas till jordat uttag" | Operating instructions and warnings are written in an accepted language of the certain country. | N/A |
| 1.7.2.1 | In Sweden, the screen of the cable distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation need to be isolated from the screen of a cable distribution system. It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by e.g. a retailer.<br>The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in:<br>"Equipment connected to the protective earthing of the building installation through the mains connection or through other equipment with a | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| | connection to protective earthing - and to a cable distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a cable distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)."<br>NOTE: In Norway, due to regulation for installations of cable distribution systems, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min.<br>Translation to Swedish: "Utrustning som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av utrustningen till kabel-TV nät galvanisk isolator finnas mellan utrustningen och kabel-TV nätet." | | |
| 2.3.2 | Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply. | | N/A |
| 2.10.5.13 | Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply. | | N/A |
| 5.1.7.1 | TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s are permitted only for the following equipment:<br>STATIONARY PLUGGABLE EQUIPMENT TYPE A that:<br>(1) is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and<br>(2) has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and<br>(3) is provided with instructions for the installation of that conductor by a SERVICE PERSON;<br>- STATIONARY PLUGGABLE TYPE B<br>- STATIONARY PERMANENTLY CONNECTED EQUIPMENT | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| 6.1.2.1 | Add the following text between the first and second paragraph of the compliance clause:<br>If this insulation is solid, including insulation forming part of a component, it shall at least consist of either<br>- two layers of thin sheet material, each of which shall pass the electric strength test below, or<br>- one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below.<br><br>Alternatively for components, there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition<br>- passes the tests and inspection criteria of 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and<br>- is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV.<br><br>It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b).<br><br>It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994, subclass Y2.<br>A capacitor classified Y3 according to EN 132400 [EN 60384-14:2005], may bridge this insulation under the following conditions:<br>- the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 132400 [EN 60384-14], which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1:2006, 6.2.2.1;<br>- the additional testing shall be performed on all the test specimens as described in EN 132400 [EN 60384-14];<br>- the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400 [EN 60384-14], in the sequence of tests as described in | | N/A |

| IEC 60950-1:2005 | | | |
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| SubClause | Difference + Test | Result - Remark | Verdict |
| | EN 132400 [EN 60384-14.] | | |
| 6.1.2.2 | The exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT and PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON. | | N/A |
| 7.2 | Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply with the term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM. | | N/A |
| 7.3 | Requirements according to this annex 1.2.13.14 and 1.7.2.1 apply. | | N/A |

| IEC 60950-1:2005 | | | |
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| SubClause | Difference + Test | Result - Remark | Verdict |

| **Switzerland - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009** | | | |
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| 3.2.1.1 | Supply cords of equipment having a RATED CURRENT not exceeding 10A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets:<br>SEV 6532-2 1991 Plug Type 15 3P+N+PE<br>SEV 6533-2 1991 Plug Type 11 L+N<br>SEV 6534-2 1991 Plug Type 12 L+N+PE<br>In general, EN 60309 applies for plugs for currents exceeding 10A. However, a 16A plug and socket-outlet system is being introduced in Switzerland, the plugs of which are according to the following dimension sheets, published in February, 1998.<br>SEV 5932-2 1998:Plug Type 25 3L+N+PE<br>SEV 5933-2 1998:Plug Type 21 L+N<br>SEV 5934-2 1998:Plug Type 23 L+N+PE | | N/A |
| 3.2.4 | Requirements according to this annex 3.2.1.1 apply. | | N/A |

| IEC 60950-1:2005 | | | |
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| SubClause | Difference + Test | Result - Remark | Verdict |

| **USA / Canada - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009** | | | |
|---|---|---|---|
| 1.1 | Equipment able to be installed in accordance with the National Electrical Code ANSI/NFPA 70 and the Canadian Electrical Code, Part1, and when applicable, the National Electrical Safety Code, IEEE C2. | | Pass |
| 1.1.1 | Equipment able to be installed in accordance with ANSI/NFPA 75 and NEC Art. 645 unless intended for use outside of computer room and provided with such instructions. | | Pass |
| 1.1.2 | Equipment in wire-line communication facilities serving high-voltage electric power stations operating at greater than 1kV are excluded. | | N/A |
| 1.1.2 | Special requirements apply to equipment intended for use outdoors. | | N/A |
| 1.4.14 | For PLUGGABLE EQUIPMENT TYPE A, the protection in the installation is assumed to be 20 A. | | Pass |
| 1.5.1 | All IEC standards for components identified in Annex P.1 replaced by the relevant requirements of CSA and UL component standards in Annex P.1. | | Pass |
| 1.5.1 | All IEC standards for components identified in Annex P.2 alternatively satisfied by the relevant requirements of CSA and UL component standards in Annex P.2. | | Pass |
| 1.5.5 | Interconnecting cables acceptable for the application regarding voltage, current, temperature, flammability, mechanical serviceability and the like. | (see appended table 1.5.1) | Pass |

| IEC 60950-1:2005 | | | |
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| SubClause | Difference + Test | Result - Remark | Verdict |
| | | | |
| 1.5.5 | For other than limited power and TNV circuits, the type of output circuit identified for output connector. | | N/A |
| 1.5.5 | External cable assemblies that exceed 3.05 m in length to be types specified in the NEC and CEC. | | N/A |
| 1.5.5 | Detachable external interconnecting cables 3.05 m or less in length and provided with equipment marked to identify the responsible organization and the designation for the cable. | | N/A |
| 1.5.5 | Building wiring and cable for use in ducts, plenums and other air handling space subject to special requirements and excluded from scope. | | N/A |
| 1.5.5 | Telephone line and extension cords and the like comply with UL 1863 and CSA C22.2 No. 233. | | N/A |
| 1.6.1.2 | Equipment intended for connection to a d.c. power (mains) distribution system is subject to special circuit classification requirements (e.g., TNV-2) | | N/A |
| 1.6.1.2 | Earthing of d.c. powered equipment provided. | | N/A |
| 1.7 | Lamp replacement information indicated on lampholder in operator access area. | | N/A |
| 1.7.1 | Special marking format for equipment intended for use on a supply system with an earthed neutral and more than one phase | | N/A |

| IEC 60950-1:2005 | | | |
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| SubClause | Difference + Test | Result - Remark | Verdict |
| | conductor. | | |
| 1.7.1 | Equipment voltage rating not higher than rating of the plug except under special conditions. | | N/A |
| 1.7.6 | Special fuse replacement marking for operator accessible fuses. | Fuse is not operator accessible. | N/A |
| 1.7.7 | Identification of terminal connection of the equipment earthing conductor. | | N/A |
| 1.7.7 | Connectors and field wiring terminals for external Class 2 or Class 3 circuits provided with marking indicating minimum Class of wiring to be used. | | N/A |
| 1.7.7 | Marking located adjacent to terminals and visible during wiring. | | N/A |
| 2.1.1.1 | Bare TNV conductive parts in the interior of equipment normally protected against contact by a cover intended for occasional removal are exempt provided instructions include directions for disconnection of TNV prior to removal of the cover. | | N/A |
| 2.3.1.b | Other telecommunication signaling systems (e.g., message waiting) than described in 2.3.1(b) are subject to M.4. | | N/A |
| 2.3.1.b | For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 Vp or 60 V d.c., the maximum current limit through a 2000 Ohm or greater resistor with loads disconnected is 7.1 mA peak or 30 mA d.c. under normal conditions. | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| 2.3.1.b | Limits for measurements across 5000 ohm resistor in the event of a single fault are replaced after 200 ms with the limits of M.3.1.4. | | N/A |
| 2.3.2.1 | In the event of a single fault, the limits of 2.2.3 apply to SELV circuits and accessible conductive parts. | | N/A |
| 2.3.2.4 | Enamel coating on signal transformer winding wire allowed as an alternative to Basic insulation in specific telecommunication applications when subjected to special construction requirements and routine testing. | | N/A |
| 2.5 | Overcurrent protection device required for Class 2 and Class 3 limiting in accordance with the NEC, or for a Limited Power Source, not interchangeable with devices of higher ratings if operator replaceable. | | N/A |
| 2.6 | Equipment having receptacles for output a.c. power connectors generated from an internal separately derived source have the earthed (grounded) circuit conductor suitably bonded to earth. | | N/A |
| 2.6.3.3 | For PLUGGABLE EQUIPMENT TYPE A, if a) b) or c) are not applicable, the current rating of the circuit is taken as 20 A | | Pass |
| 2.6.3.3 | The first column on Table 2D requirement: “Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration." | | N/A |
| 2.6.3.4 | Capacity of connection between earthing terminal and parts required to be earthed subject to | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| | special conditions based on the current rating of the circuit. | | |
| 2.6.3.4 | Protective bonding conductors and their terminals of non-standard constructions (e.g. PWB traces) evaluated to limited short-circuit test of CSA C22.2 No.0.4. | | N/A |
| 2.6.4.1 | Field wiring terminals for earthing conductors suitable for wire sizes (gauge) used in US and Canada. | | N/A |
| 2.7.1 | Data for selection of special external branch circuit overcurrent devices marked on the equipment. | | N/A |
| 2.7.1 | Standard supply outlets protected by overcurrent device in accordance with the NEC, and CEC, Part 1. | | N/A |
| 2.7.1 | Overcurrent protection for individual transformers that distribute power to other units over branch circuit wiring. | | N/A |
| 2.7.1 | Additional requirements for overcurrent protection apply to equipment provided with panelboards. | | N/A |
| 2.7.1 | Non-motor-operated equipment requiring special overcurrent protective device marked with device rating. | | N/A |
| 2.10.5.12 | Multi-layer winding wire subject to UL component wire requirements in addition to 2.10.5.12 and Annex U. | | Pass |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| 3.1.1 | Permissible combinations of internal wiring/external cable sizes for overcurrent and short circuit protection. | | Pass |
| 3.1.1 | All interconnecting cables protected against overcurrent and short circuit. | | Pass |
| 3.2 | Wiring methods permit connection of equipment to primary power supply in accordance with the NEC and CEC, Part 1. | | Pass |
| 3.2.1 | Permitted use for flexible cords and plugs. | | N/A |
| 3.2.1 | Flexible cords provided with attachment plug rated 125% of equipment current rating. | | N/A |
| 3.2.1 | Any Class II equipment provided with 15 or 20 A standard supply outlets, Edison-base lampholders or single pole disconnect device provided with a polarized type attachment plug. | | N/A |
| 3.2.1.2 | Equipment intended for connection to DC mains supply power systems complies with special wiring requirements (e.g., no permanent connection to supply by flexible cord). | | N/A |
| 3.2.1.2 | Equipment with one pole of the DC mains supply connected to both the equipment mains input terminal and the main protective earthing terminal provided with special instructions and construction provisions for earthing. | | N/A |
| 3.2.1.2 | Equipment with means for connecting supply to earthing electrode conductor has no switches or protective devices between supply | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| | connection and earthing electrode connection. | | |
| 3.2.1.2 | Special markings and instructions for equipment with provisions to connect earthed conductor of a DC supply circuit to earthing conductor at the equipment. | | N/A |
| 3.2.1.2 | Special markings and instructions for equipment with earthed conductor of a DC supply circuit connected to the earthing conductor at the equipment. | | N/A |
| 3.2.1.2 | Terminals and leads provided for permanent connection of DC powered equipment to supply marked to indicate polarity if reverse polarity may result in a hazard. | | N/A |
| 3.2.3 | Permanently connected equipment has provision for connecting and securing a field wiring system (i.e. conduit, or leads etc.) per the NEC and CEC, Part 1. | | N/A |
| 3.2.3 | Permanently connected equipment may have terminals or leads not smaller than No. 18 AWG (0.82 mm²) and not less than 150 mm in length for connection of field installed wiring. | | N/A |
| 3.2.3 | If supply wires exceed 60 °C, marking indicates use of 75 °C or 90 °C wiring for supply connection as appropriate. | | N/A |
| 3.2.3 | Equipment compatible with suitable trade sizes of conduits and cables. | | N/A |
| 3.2.5 | Power supply cords are required to be no longer than 4.5 m in length. | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| | Minimum cord length is required to be 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement.<br><br>Flexible power supply cords are required to be compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC. | | |
| 3.2.5 | Conductors in power supply cords sized according to NEC and CEC, Part I. | | N/A |
| 3.2.5 | Power supply cords and cord sets incorporate flexible cords suitable for the particular application. | | N/A |
| 3.2.6 | Strain relief provided for non-detachable interconnecting cables not supplied by a limited power source. | | Pass |
| 3.2.9 | Adequate wire bending space and volume of field wiring compartment required to properly make the field connections. | | N/A |
| 3.2.9 | Equipment intended solely for installation in Restricted Access Locations using low voltage d.c. systems may not need provision for connecting and securing a field wiring system. A method of securing wiring or instructions provided to ensure the wiring is protected from abuse. | | N/A |
| 3.3 | Field wiring terminals provided for interconnection of units for other than LPS or Class 2 circuits also comply with 3.3. | | N/A |
| 3.3 | Interconnection of units by LPS or Class 2 conductors may have field wiring connectors other | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| | than those specified in 3.3 if wiring is reliably separated. | | |
| 3.3.1 | Terminals for the connection of neutral conductor identified by a distinctive white marking or other equally effective means. | | N/A |
| 3.3.3 | Wire binding screw terminal permitted for connection of No. 10 AWG (5.3 mm²) or smaller conductor if provided with upturned lugs, cupped washer or equivalent retention. | | N/A |
| 3.3.4 | Terminals accept wire sizes (gauge) used in the U.S. and Canada. | | N/A |
| 3.3.4 | Terminals accept current-carrying conductors rated 125% of the equipment current rating. | | N/A |
| 3.3.5 | First column of Table 3E requirement: “Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration.” | | N/A |
| 3.3.6 | Field wiring terminals marked to indicate the material(s) of the conductor appropriate for the terminals used. | | N/A |
| 3.3.6 | Connection of an aluminum conductor not permitted to terminal for equipment earthing conductor. | | N/A |
| 3.3.6 | Field wiring connections made through the use of suitable pressure connectors (including set screw type), solder lugs or splices to flexible leads. | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| 3.4.2 | Separate motor control device(s) required for cord-connected equipment rated more than 12 A, or with motor rated more than 1/3 hp or more than 120 V. | | N/A |
| 3.4.8 | Vertically mounted disconnect devices oriented so up position of handle is "on". | | N/A |
| 3.4.11 | For computer-room applications, equipment with battery systems capable of supplying 750 VA for 5 min require battery disconnect means. | | N/A |
| 4.2.8.1 | Special opening restrictions for enclosures around CRTs with face dimension of 160 mm or more. | | N/A |
| 4.2.9 | Compartment housing high-pressure lamp marked to indicate risk of explosion. | | N/A |
| 4.2.11 | For equipment intended for mounting on racks and provided with slide/rails allowing the equipment to slide away from the rack for installation, service and maintenance, additional construction, performance and marking requirements are applicable to determine the adequacy of the slide/rails. | | N/A |
| 4.3.2 | Loading test for equipment with handle(s) used to support more than 9 kg tested at four times the weight of the unit. | | N/A |
| 4.3.6 | In addition to the IEC requirements, Direct Plug-in Equipment complies with UL 1310 or CSA 223 mechanical assembly requirements. | | N/A |
| 4.3.12 | | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| | The maximum quantity of flammable liquid stored in equipment complies with ANSI/NFPA 30(Table NAE.6). | | |
| 4.3.12 | Equipment using replenishable liquids marked to indicate type of liquid to be used. | | N/A |
| 4.3.13.2 | Equipment that produces x-radiation and does not comply with 4.3.12 under all conditions of servicing marked to indicate the presence of radiation where readily visible. | | N/A |
| 4.3.13.5 | Requirements contained in the applicable national codes and regulations apply to lasers (21 CFR 1040 and REDR C1370). | | N/A |
| 4.7 | Automated information storage equipment intended to contain more than 0.76 $m^3$ of combustible media requires provision for automatic sprinklers or a gaseous agent extinguishing system. | | N/A |
| 4.7.3.1 | Equipment for use in environmental air space other than ducts or plenums provided with metal enclosure or with non-metallic enclosure having adequate fire-resistance and low smoke producing characteristics. Low smoke-producing characteristics evaluated according to UL 2043. Equipment for installation in space used for environmental air as described in Sec. 300-22(c) of the NEC provided with instructions indicating suitability for installation in such locations. | | N/A |
| 4.7.3.1 | Flame spread rating for external surface of combustible material with exposed area greater than 0.93 $m^2$ or a single dimension greater than 1.8 m; 50 or less for computer room applications or 200 or less for other applications. | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| 4.7.3.4 | Wire marked "VW-1" or "FT-1" considered equivalent. | | Pass |
| 5.1.8.2 | Special earthing provisions and instructions for equipment with high touch current due to telecommunication network connections. | | N/A |
| 5.1.8.3 | Touch current due to ringing voltage for equipment containing telecommunication network leads. | | N/A |
| 5.3.7 | Overloading of SELV connectors and printed wiring board receptacles accessible to the operator. | | N/A |
| 5.3.7 | Tests interrupted by opening of a component repeated two additional times. | | Pass |
| 5.3.9.1 | Test interrupted by opening of wire or trace subject to certain conditions. | | N/A |
| 6 | Specialized instructions provided for telephones that may be connected to a telecommunications network. | | N/A |
| 6 | Marking identifying function of telecommunication type connectors not used for connection to a telecommunication network. | | N/A |
| 6.3 | Equipment remotely powered over telecommunication wiring systems provided with specialized markings adjacent to the connection. | | N/A |
| 6.3 | Overcurrent protection incorporated into | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| | equipment to provide power over telecommunication wiring system not interchangeable with devices of higher ratings if operator replaceable. | | |
| 6.4 | Additional requirements for equipment intended for connection to a telecommunication network using cable subject to overvoltage from power line failures (Fig. 6C). | | N/A |
| 6.4 | Where 26 AWG line cord required by Fig. 6C, either the cord is provided with the equipment or described in the safety instructions. | | N/A |
| 7 | Equipment associated with the cable distribution system may need to be subjected to applicable parts of Chapter 8 of the NEC. | | N/A |
| H | Ionizing radiation measurements made under single fault conditions in accordance with the requirements of the Code of Federal Regulations 21 CFR 1020 and the Canadian Radiation Emitting Devices Act, REDR C1370. | | N/A |
| M.2 | Continuous ringing signals evaluated to Method A subjected to special accessibility considerations. | | N/A |
| M.4 | Special requirements for message waiting and similar telecommunications signals. | | N/A |
| NAC | Equipment intended for use with a generic secondary protector marked with suitable instructions. | | N/A |
| NAC | Equipment intended for use with a specific | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| | primary or secondary protector marked with suitable instructions. | | |
| NAD | Acoustic pressure from an ear piece less than 140 dBA for short duration disturbances, and less than 125 dBA for handsets, 118 dBA for headsets and insert earphones, for long duration disturbances. | | N/A |
| NAD | Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure requirements. | | N/A |
| EE.5 | UL articulated accessibility probe (Fig. EE.3) required for assessing accessibility to document/media shredders, instead of Figure 2A test finger. | | N/A |

| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| **United Kingdom - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009** | | | |
| 2.6.3.3 | The current rating of the circuit shall be taken as 13 A, not 16 A. | Considered. | Pass |
| 2.7.1 | To protect against excessive currents and short-circuits in the PRIMARY CIRCUIT of DIRECT PLUG-IN EQUIPMENT, tests according to 5.3 shall be conducted, using an external protective device rated 30 A or 32 A. If these tests fail, suitable protective devices shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT, so that the requirements of 5.3 are met. | | Pass |
| 3.2.1.1 | Apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord and plug, shall be fitted with a "standard plug" in accordance with Statutory Instrument 1786: 1994 - The Plugs and Sockets etc. (Safety) Regulations 1994, unless exempted by those regulations.<br><br>NOTE: "Standard plug" is defined in SI 1786: 1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug. | Appliance inlet provided for models; a detachable power supply cord in compliance with national requirements will be provided by the local distributor. | N/A |
| 3.2.5.1 | A power supply cord with conductor of 1.25 mm² is allowed for equipment with a rated current over 10A and up to and including 13A. | Appliance inlet provided for models; a detachable power supply cord in compliance with national requirements will be provided by the local distributor. | N/A |
| 3.3.4 | The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current of over 10 A up to and including 13 A is 1.25 mm² to 1.5 mm² nominal cross-sectional area. | | N/A |

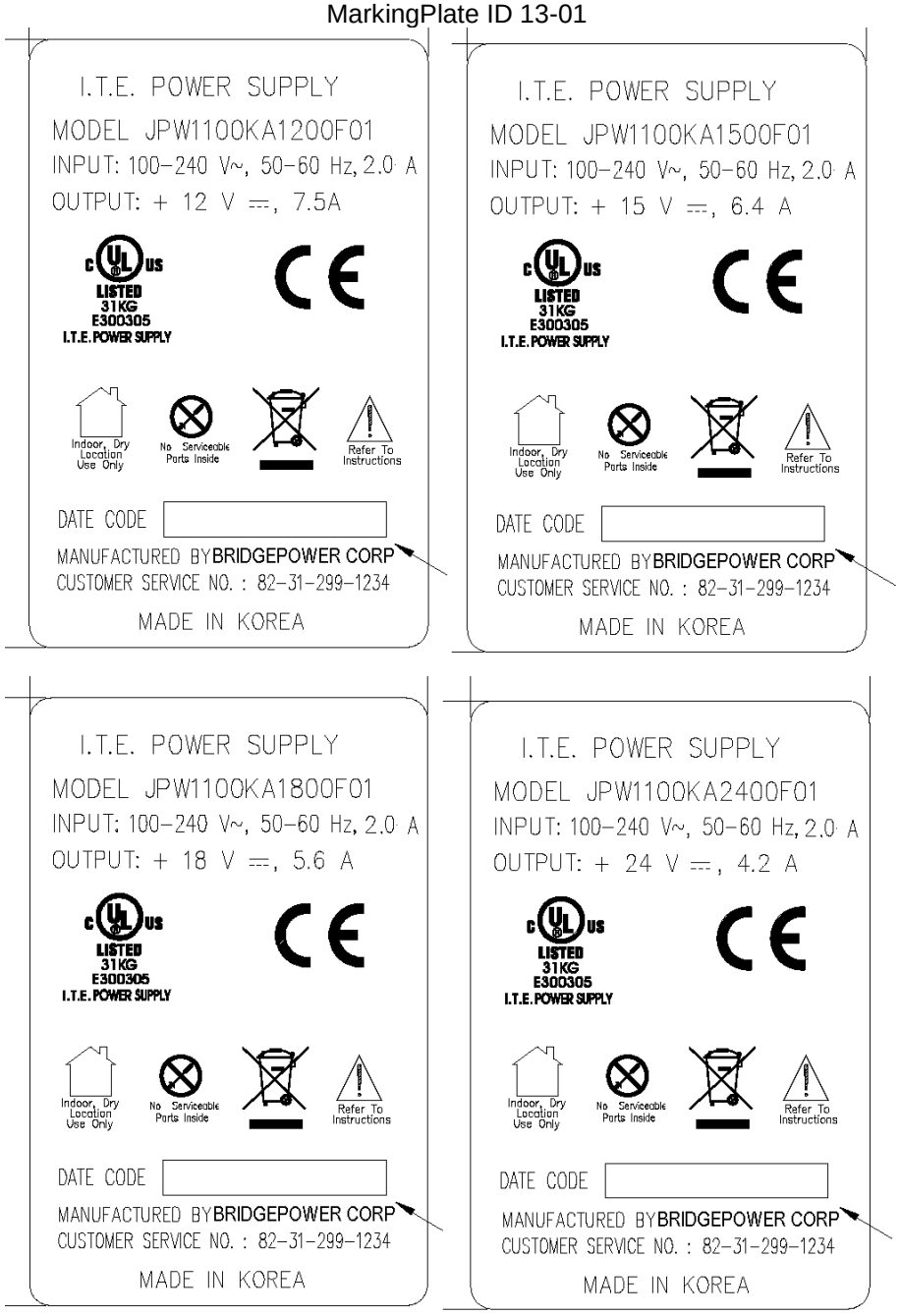
| IEC 60950-1:2005 | | | |
|---|---|---|---|
| SubClause | Difference + Test | Result - Remark | Verdict |
| 4.3.6 | The torque test is performed using a socket outlet complying with BS 1363 part 1:1995, including Amendment 1:1997 and Amendment 2:2003 and the plug part of DIRECT PLUG-IN EQUIPMENT shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply. | | N/A |

# Enclosures

| Type | Supplement Id | Description |
|---|---|---|
| Photographs | 3-01 | Overall Top View |
| Photographs | 3-02 | Overall Bottom View |
| Photographs | 3-03 | Overall Top View without Enclosure |
| Photographs | 3-04 | Overall Side View without Enclosure |
| Photographs | 3-05 | Overall Printed Wiring Board View |
| Photographs | 3-06 | Overall Printed Wiring Board View |
| Photographs | 3-07 | Overall Top View without Enclosure (JPW1100KB1200F01, JPW1100KB1300F01, JPW1100KB1500F01, and JPW1100KB1600F01) |
| Photographs | 3-08 | Overall Bottom View without Enclosure (JPW1100KB1200F01, JPW1100KB1300F01, JPW1100KB1500F01, and JPW1100KB1600F01) |
| Photographs | 3-09 | Overall Top View without Enclosure (JPW1100KB1200F01, JPW1100KB1300F01, JPW1100KB1500F01, and JPW1100KB1600F01) |
| Diagrams | | |
| Schematics + PWB | | |
| Manuals | | |
| Miscellaneous | 7-02 | National Differences - Japan |
| Miscellaneous | 7-03 | National Differences - Appended Page for AS/NZS60950-1: 2003+A1+A2+A3 |
| Miscellaneous | 7-04 | Manufacturer Declaration |
| Miscellaneous | 7-06 | Diagram for Heat Sink |
| Miscellaneous | 7-07 | Transformer_ 3025579001A |
| Miscellaneous | 7-08 | Transformer_ 3025579002A |
| Miscellaneous | 7-09 | National Difference for China |
| Licenses | | |
| Marking Plate | 13-01 | Marking Plate Label |
| Marking Plate | 13-02 | Marking Plate Label |
| Marking Plate | 13-03 | Marking Plate Label |
| Marking Plate | 13-04 | Marking Plate Label |

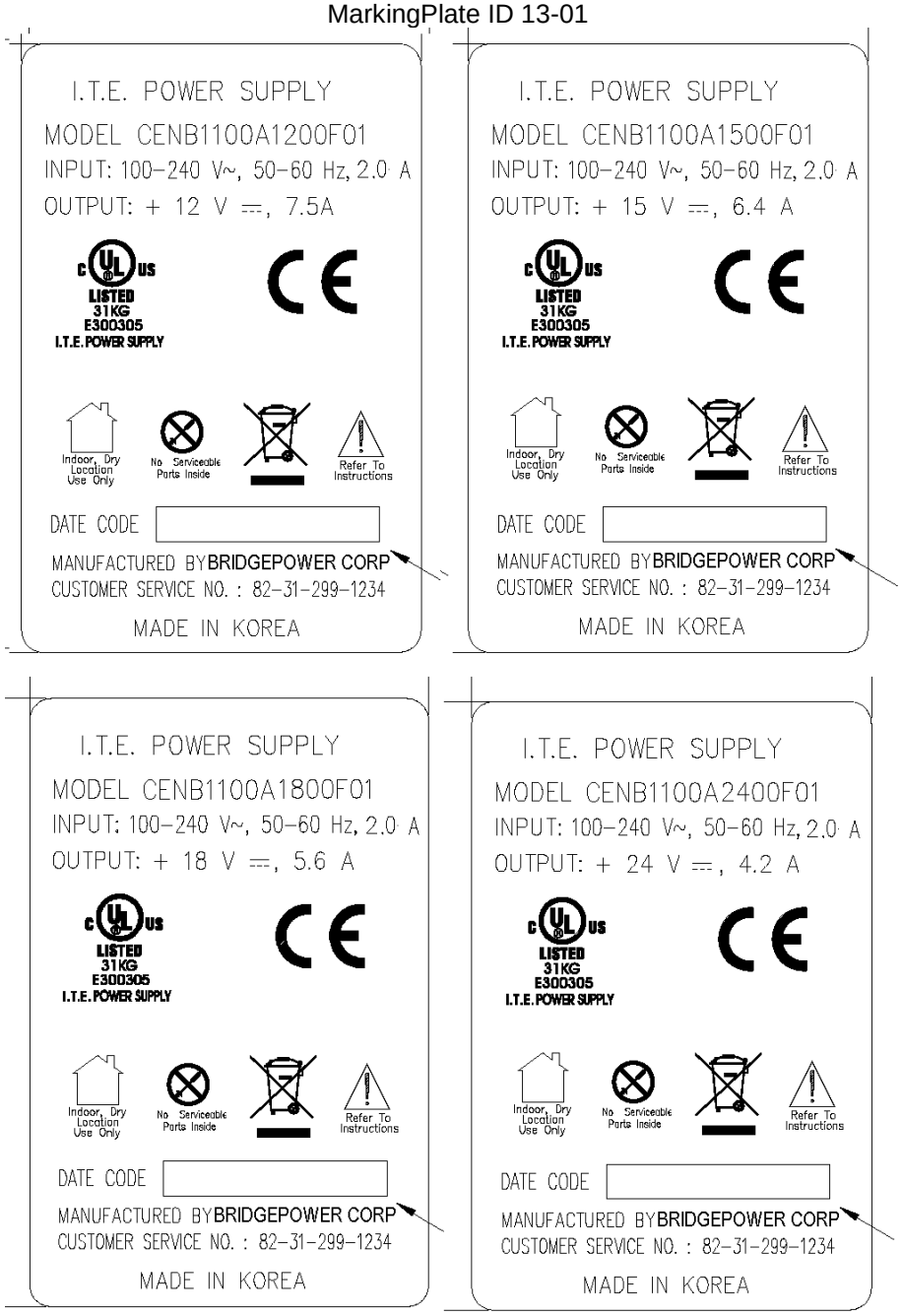
Enclosures

MarkingPlate ID 13-01



Enclosures

MarkingPlate ID 13-01



Enclosures

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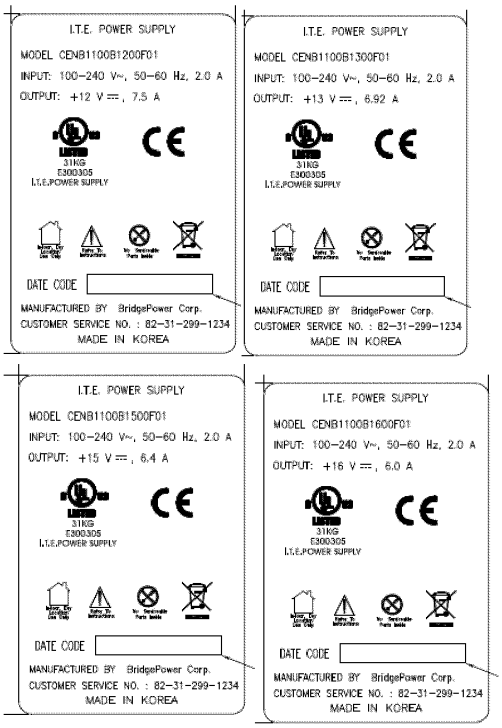

Enclosures

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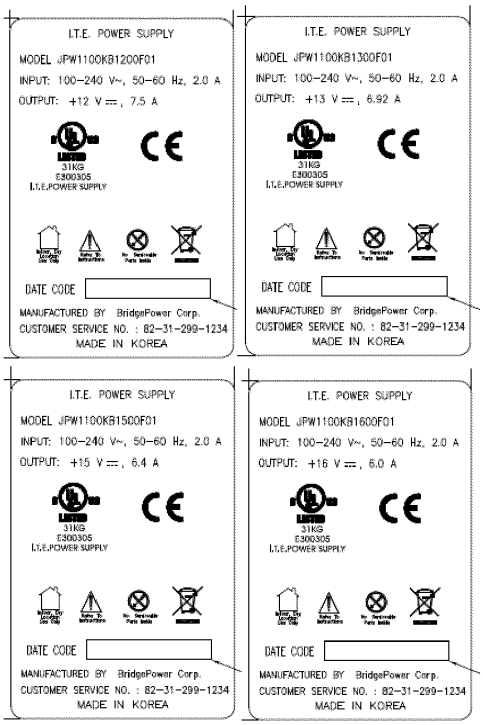

Enclosures

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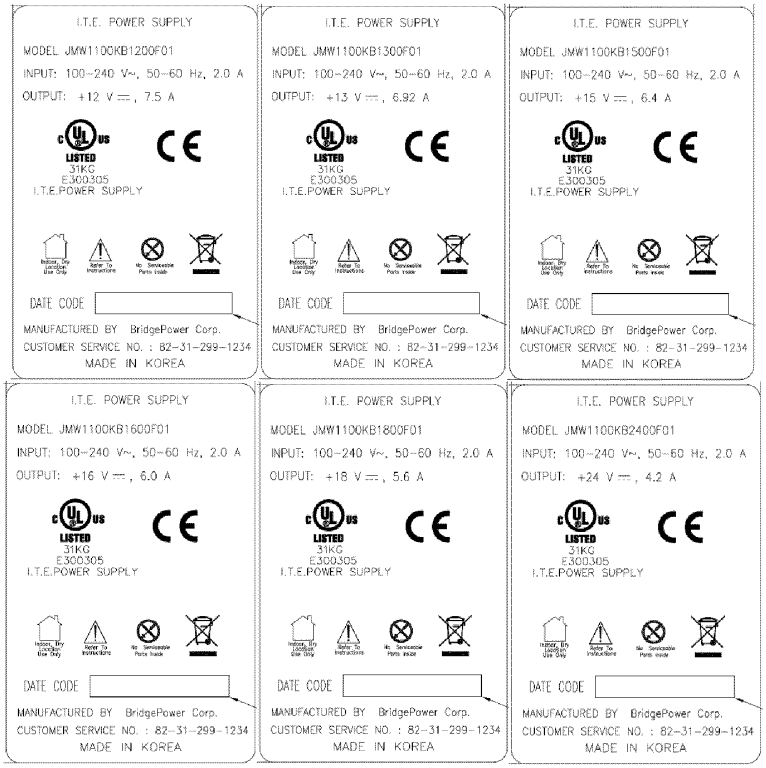

Enclosures

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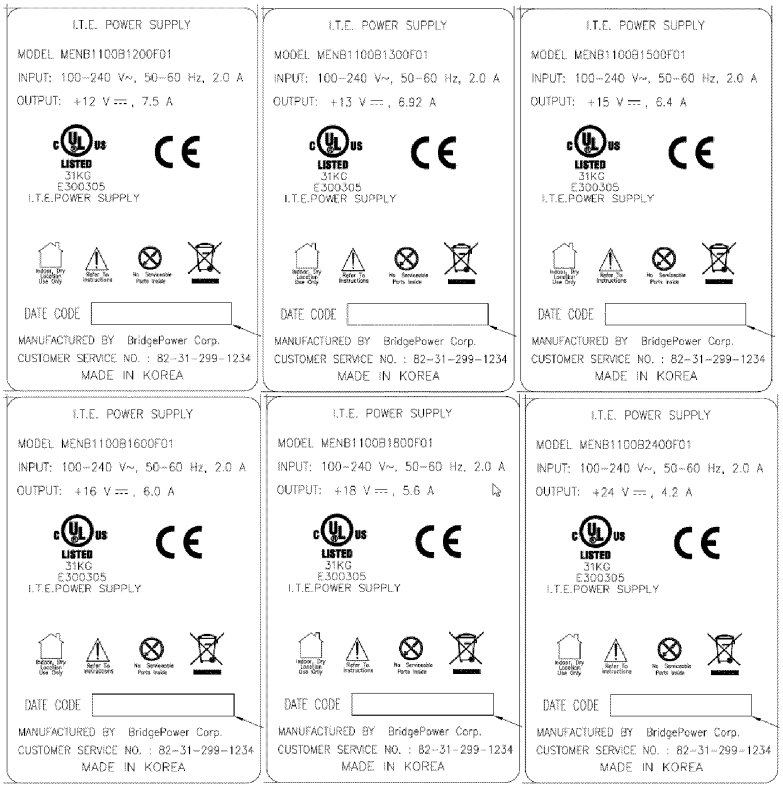
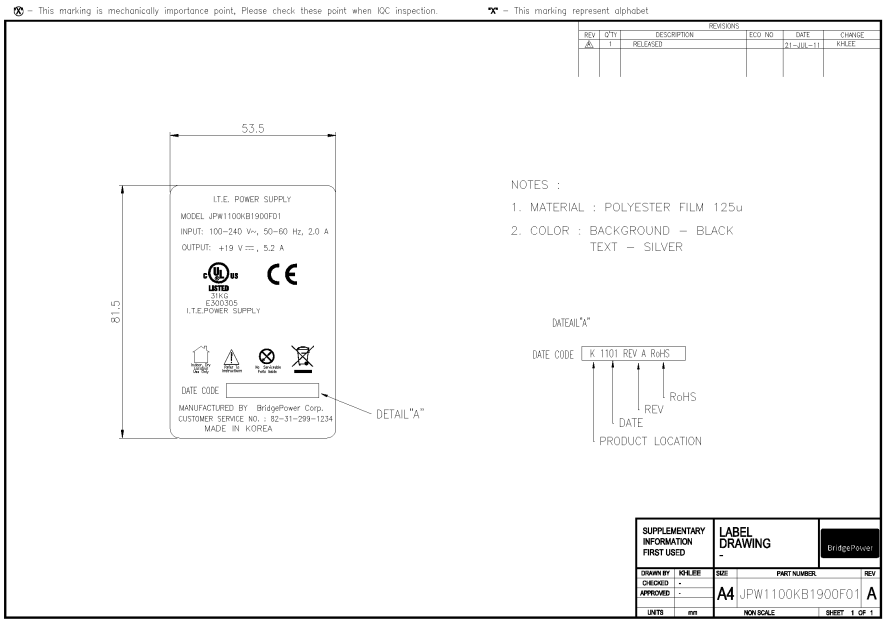


Enclosures

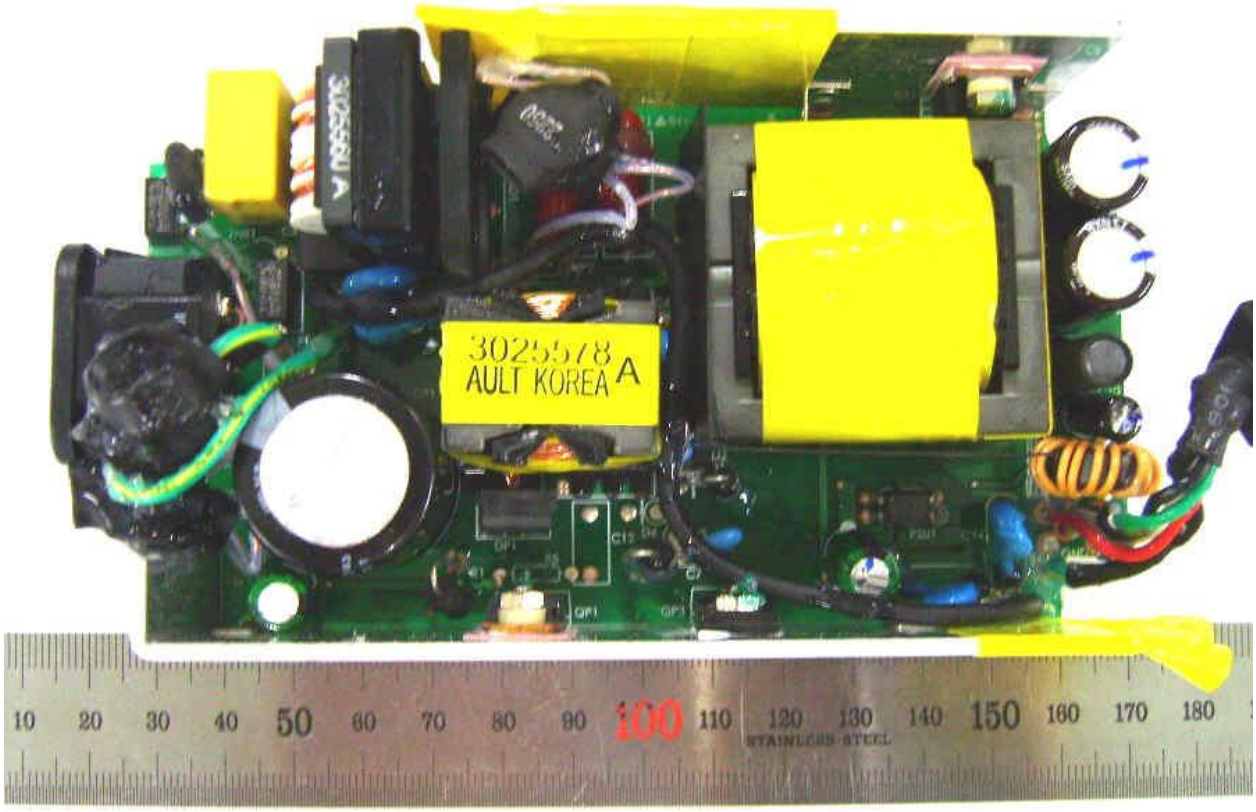
MarkingPlate ID 13-04



Photographs ID 3-01

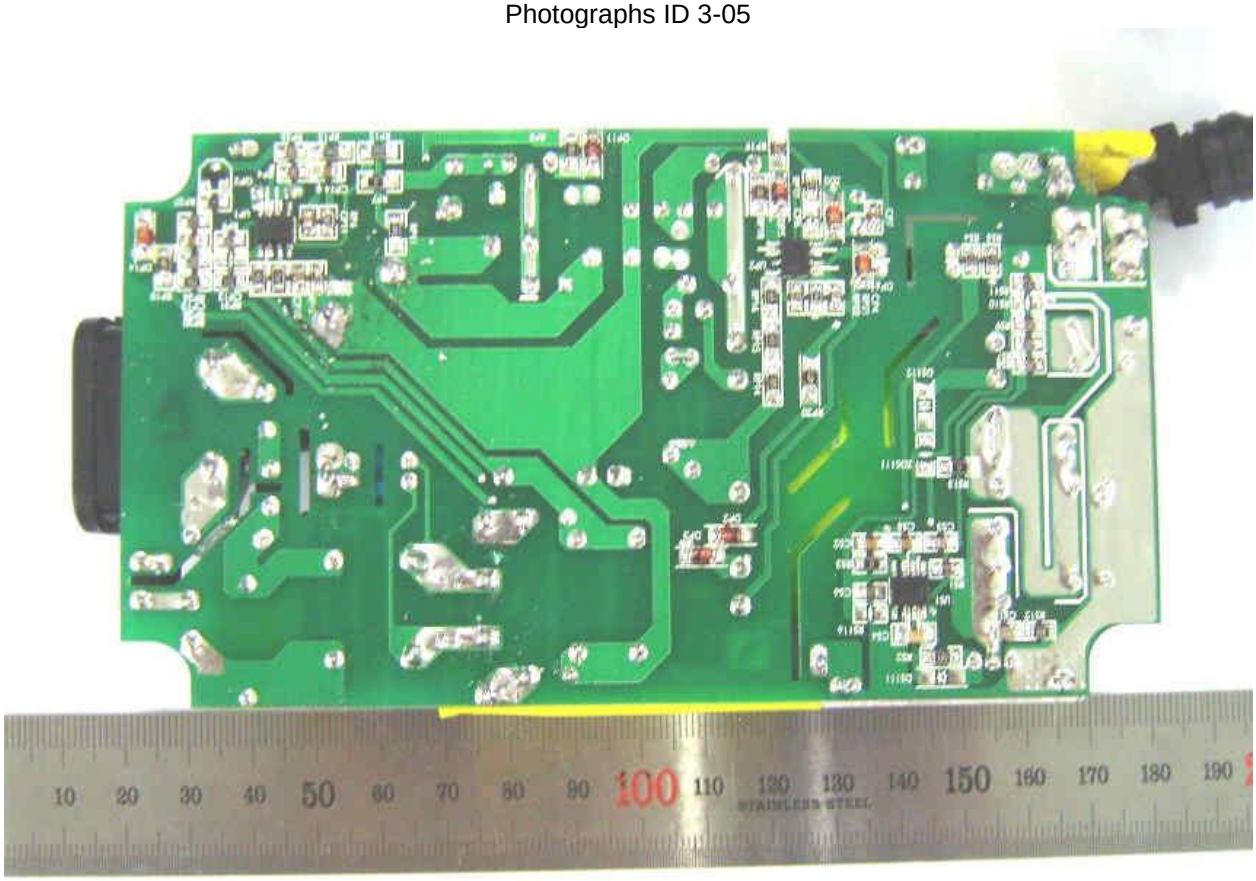
Photographs ID 3-02

Photographs ID 3-03

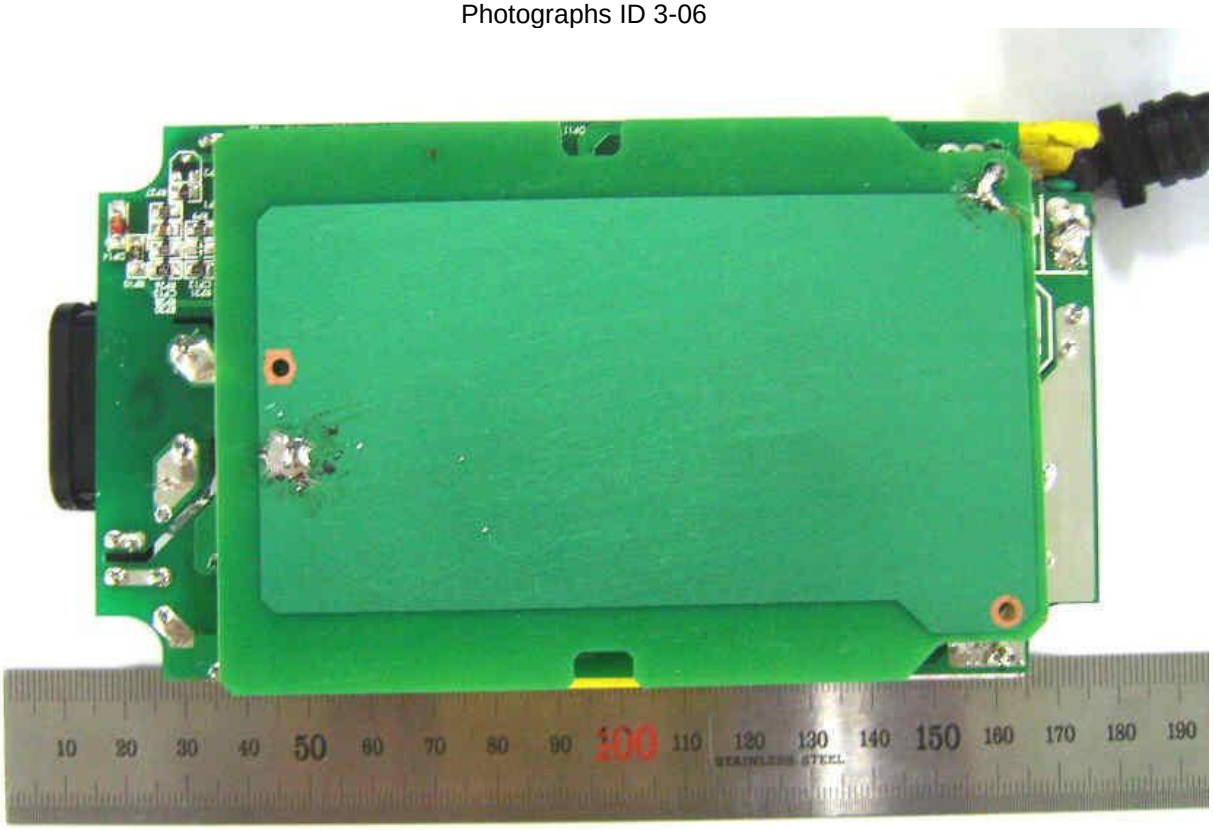


Photographs ID 3-04

Photographs ID 3-05

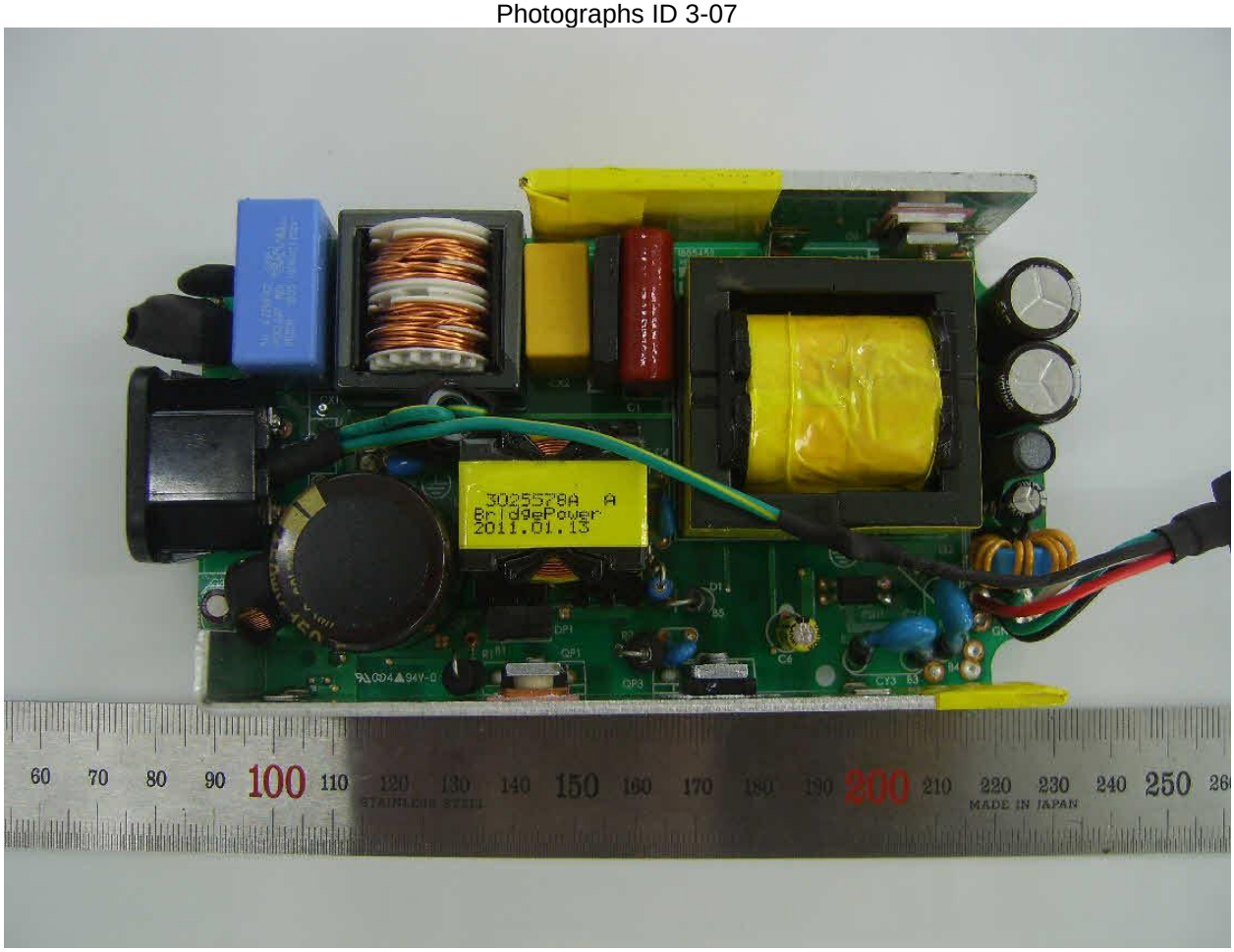


Photographs ID 3-06



Enclosures

Photographs ID 3-07



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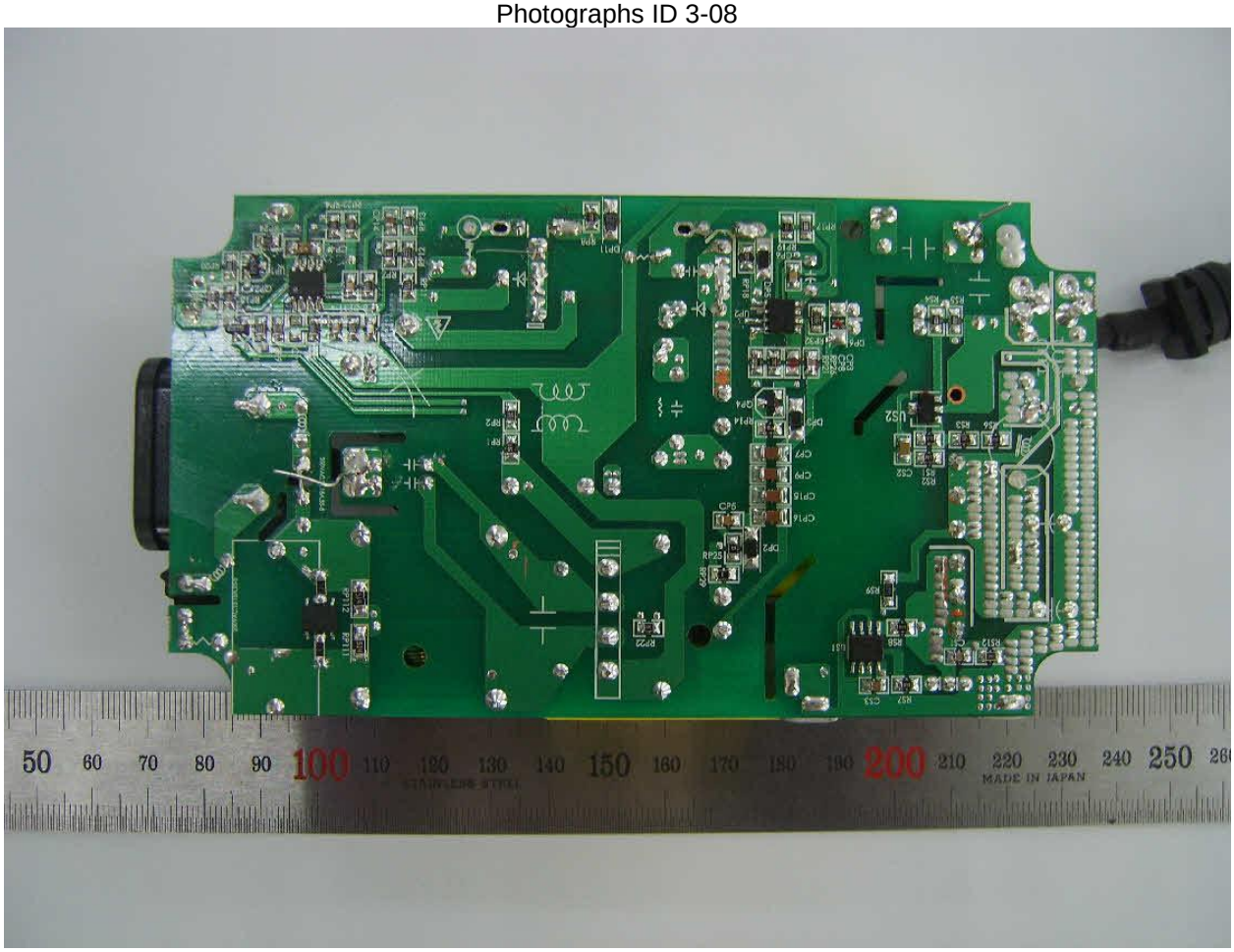

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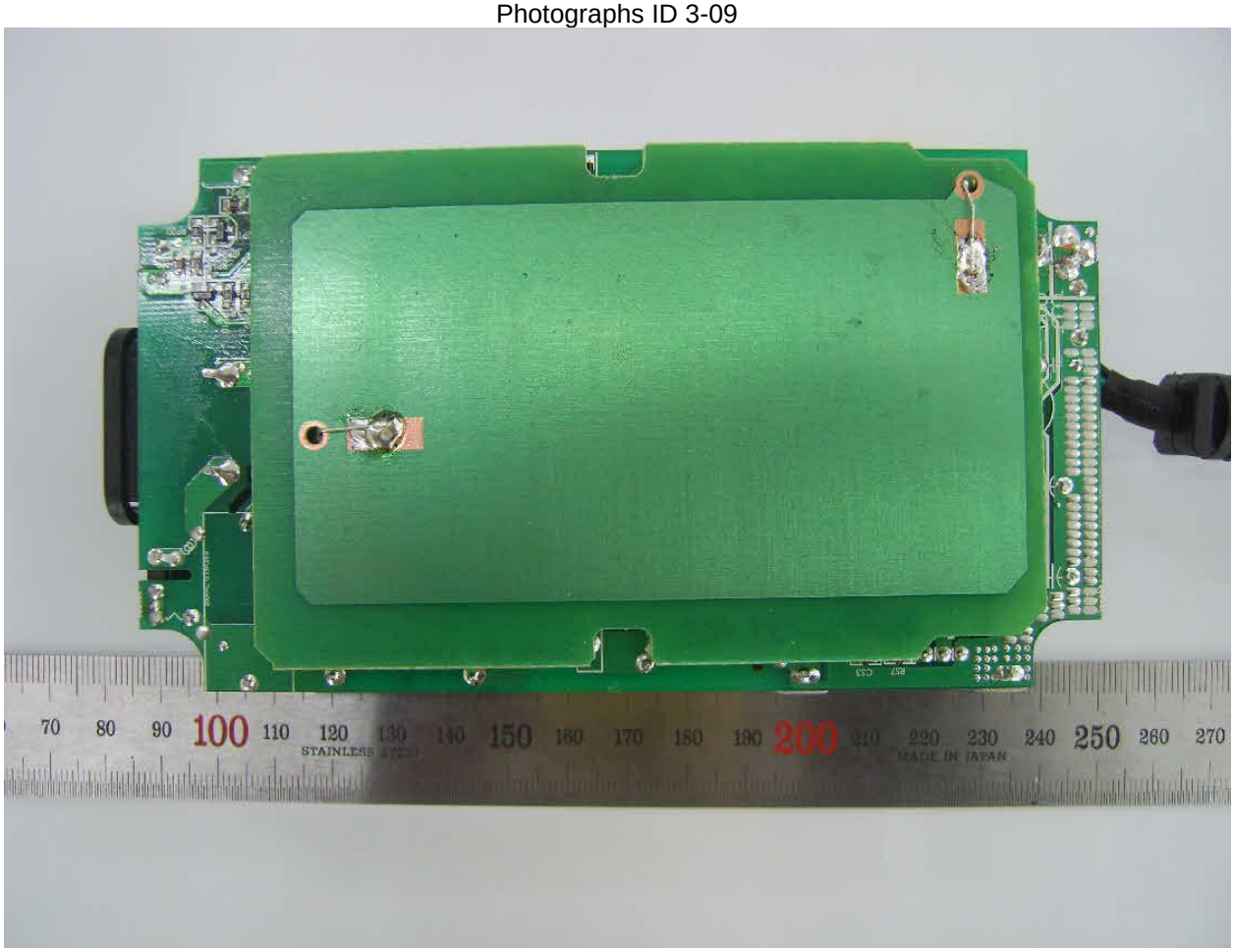


Misc ID 7-02

## Enclosure

**National Differences**

(Total 4 Pages including this Cover Page)

**Japan - IEC60950, Third Edition (1999)**

Enclosures

Misc ID 7-02

| Japan - Differences to IEC60950, Third Edition (1999) | | | |
|---|---|---|---|
| 1.2.4.101 | Addition:<br>Definition of CLASS 0I EQUIPMENT | Not Class 0I equipment | N/A |
| 1.2.12.1 | Replacement:<br>FLAMMABILITY CLASSIFICATION OF MATERIALS:<br>"The recognition of the burning behaviour of materials and their ability to extinguish if ignited. Materials are classified as in 1.2.12.2 to 1.2.12.9, and 1.2.12.101 when tested in accordance with annex A" | All materials have suitable flame class, no testing required. | N/A |
| 1.2.12.101 | Addition:<br>Definition of VTM CLASS MATERIAL | | N/A |
| 1.7.101 | Addition: Marking for CLASS 01 EQUIPMENT<br>The following instruction is indicated on the visible place of the mains plug or the main body:<br>"Provide an earthing connection" | Not Class 0I equipment | N/A |
| 1.7.101 | Addition: Marking for CLASS 01 EQUIPMENT<br>The following instruction is indicated on the visible place on the main body or written in the operating instructions:<br>"Provide an earthing connection before the mains plug is connected to the mains. And, when disconnecting the earthing connection, be sure to disconnect after pulling out the mains plug from the mains." | Not Class 0I equipment | N/A |
| 2.1.1.1 | Replace:<br>"IEC 60083" by "IEC 60083 or JIS C 8303"<br>in 2.1.1.1 b) | | N/A |
| 2.6.3.1 | Add the following after 1st paragraph:<br>"This also applies to the conductor of lead wire for protective earthing of CLASS 0I EQUIPMENT" | Not Class 0I equipment | N/A |
| 2.6.4.1 | Replace 2nd sentence in 1st paragraph:<br>"For CLASS I EQUIPMENT with a DETACHABLE POWER SUPPLY CORD, the earthing terminal in the appliance inlet is regarded as the main protective earthing terminal" | | N/A |
| 2.6.5.4 | Replace 1st sentence:<br>"Protective earthing connections of CLASS I EQUIPMENT shall make earlier and break later than the supply connections in each of the following:" | | N/A |
| 2.6.101 | Addition: Earthing of CLASS 01 EQUIPMENT<br>Plugs with a lead wire for earthing not used for | Not Class 0I equipment | N/A |

Enclosures

Misc ID 7-02

| | | | |
|---|---|---|---|
| | equipment having a rated voltage exceeding 150 V | | |
| 2.6.101 | Addition: Earthing of CLASS 01 EQUIPMENT For plugs with a lead wire for earthing, the lead wire is not earthed by a clip | Not Class 0I equipment | N/A |
| 2.6.101 | Addition: Earthing of CLASS 01 EQUIPMENT provided with an earthing terminal or lead wire for earthing in the external where easily visible | Not Class 0I equipment | N/A |
| 3.2.5 | Delete the following statement from a note 1 in Table 3B: "For RATED CURRENT up to 3A, a nominal cross-sectional area of 0.5 mm2 is permitted in some countries provided that the length of the cord does not exceed 2 m" | | N/A |
| 4.2.8 | Add the following informative remark after the last sentence: "IEC 61965 is also applicable instead of IEC 60065" | No CRTs in the equipment | N/A |
| 4.5.1 | Add the following to note 5) of Table 4A, Part 2: "With regard to Table 4A, insulating materials complying with Japanese requirements (refer to Japanese differences for IEC 60335-1 3rd Edition in CB Bulletin 101B) are also acceptable" | Considered | Pass |
| 4.5.1 | Add a note reference 7) to "50", in the right column of Table 4A, Part 1 and add a note 7 to Table 4A, Part 2 as follows: "7) This value apply only to wiring or cords complying with relevant IEC standards. Others comply with Japanese requirements (refer to Japanese differences for IEC 60335-1 3rd Edition in CB Bulletin 101B)" | Considered | Pass |
| 4.7.3.2 | Add the following in 7th paragraph: "- for thin materials, e.g., flexible printed boards, etc., used inside equipment, be of FLAMMABILITY CLASS VTM-2 or better" | V-1 or better. | Pass |
| 5.1.6 | Replace Table 5A to include maximum TOUCH CURRENT values for CLASS 0I EQUIPMENT | Not Class 0I equipment | N/A |
| 5.3.8.2 | Replace 3rd Item as follows: "- BASIC INSULATION between the PRIMARY CIRCUIT and accessible conductive parts of CLASS I or 0I EQUIPMENT;" | | N/A |
| Annex A | Add the subclause A.101titled: "Flammability tests for classifying materials VTM" and the following: "Thin sheet materials shall comply with ISO 9773" | | N/A |
| Annex G | Add to the Note for Table G.1. | | N/A |

Enclosures

Misc ID 7-02

| | | | |
|---|---|---|---|
| | "2. In Japan, MAINS TRANSIENT VOLTAGE for equipment with a Nominal AC MAINS SUPPLY VOLTAGE of 100V is to be decided based on the column where Nominal AC MAINS SUPPLY VOLTAGE in Table G.1 is 150V" | | |
| Annex P | Add:<br>"IEC 61965:2000, Mechanical Safety for Cathode Ray Tubes" | | N/A |
| Annex U | Replace 2nd paragraph as follows:<br>"This annex covers to round winding wires having diameters between 0.05 mm and 5.00 mm" | | N/A |
| U.2.1 | Replacement:Electric strength<br>"The test sample is prepared per IEC 60851-5:1997, 4.4.1 (for a twisted pair and subjected to the test of 5.2.2, with a test voltage not less than twice the appropriate voltage in table 5B (see 5.2.2) of this standard. However, the minimum values shall be as follows:<br>- for BASIC INSULATION or SUPPLEMENTARY INSULATION, 3000 V, or;<br>- for REINFORCED INSULATION, 6000 V" | | N/A |
| U.2.2 | Replacement:Flexibility and adherence<br>Test 8 of IEC 60851-3:1996, 5.1.1, using the mandrel diameter of Table U.1 (mm) | | N/A |
| U.2.2 | Test voltage not less than twice the appropriate voltage in table 5B (see 5.2.2) of this standard and not less than:<br>- 1500 V for BASIC INSULATION or SUPPLEMENTARY INSULATION, or;<br>- 3000 V for REINFORCED INSULATION | | N/A |

Enclosures

Misc ID 7-03

## Enclosure

### National Differences

**Appended Page for AS/NZS60950-1: 2003+A1+A2+A3**

| Australia / New Zealand (AS/NZS60950-1: 2003+A1+A2+A3) - Differences to IEC 60950-1:2001, First Edition | | | |
|---|---|---|---|
| 4.1.201 | Add the following after the last Paragraph of Clause 4.1 Display devices used for television purposes: Display devices which may be used for television purposes, with a mass of 7 kg or more, shall comply with the requirements for stability and mechanical hazards, including the additional stability requirements for television receivers, specified in AS/NZS 60065. | Not Display devices. | N/A |
| 7.2 | Add the following before the first paragraph: Equipment providing functions that fall only within the scope of AS/NZS 60065 and that incorporate a PSTN interface, are not required to comply with this Clause where the only ports provided on the equipment, in addition to a coaxial cable connection and a PSTN interface, are audio or video ports and analogue or data ports not intended to be used for telecommunications purpose. | Not connected to a cable distribution system. | N/A |
| Annex M.2 | Method A – add as follows; $I_{TS1} = \frac{t_1 - 600}{600} \times \frac{I_{pp}}{2\sqrt{2}} + \frac{1200 - t_1}{600} \times \frac{I_p}{\sqrt{2}}$ for (600 ms < $t_1$ < 1 200 ms) $I_{TS1} = \frac{I_{pp}}{2\sqrt{2}}$ for ($t_1 \geq$ 1 200 ms) | Not telephone device. | N/A |

Enclosures

Misc ID 7-04

DRAFT CB TEST CERTIFICATE INFORMATION

Generated by ULtraLink on: 2011/08/05

| | |
|---|---|
| Product | Switching Power Supply |
| | |
| Name and address of the Applicant | BRIDGEPOWER CORP<br>964 GOSAEK-DONG<br>GWONSEON-GU<br>SUWON-SI GYEONGGI-DO 441-813 KOREA |
| | |
| Name and address of the Manufacturer | BRIDGEPOWER CORP<br>964 GOSAEK-DONG<br>GWONSEON-GU<br>SUWON-SI GYEONGGI-DO 441-813 KOREA |
| | |
| Name and address of the Factory(ies) | BRIDGEPOWER CORP<br>964 GOSAEK-DONG<br>GWONSEON-GU<br>SUWON-SI GYEONGGI-DO 441-813 KOREA<br><br>WENDENG JEIL ELECTRONICS CO LTD<br>DONG SHOU GUANGZHOU LU<br>KAIFA-QU<br>WENDENG-SHI SHANDONG CHINA |
| | |
| Rating and principal characteristics | Input Rating: 100-240 Vac, 50-60 Hz, 2.0 A<br>Output Rating: 12.0 Vdc, 7.5 A or<br>13.0 Vdc, 6.92A or<br>15.0 Vdc, 6.4 A or<br>16.0Vdc, 6.0 A or<br>18.0 Vdc, 5.6 A or<br>19.0 Vdc, 5.2A or<br>24.0 Vdc, 4.2 A |
| | |
| Trademarks (if any) | None |
| | |
| | |
| Model / Type ref. | JPW1100**12**F**, JPW1100**13**F**, JPW1100**15**F**, JPW1100**16**F**, JPW1100**18**F**, JPW1100**19**F**, JPW1100**24**F**, CENB1100*12**F**, CENB1100*13**F**, CENB1100*15**F**, CENB1100*16**F**, CENB1100*18**F**, CENB1100*19**F**, CENB1100*24**F**, JMW1100**12**F**, JMW1100**13**F**, JMW1100**15**F**, JMW1100**16**F**, JMW1100**18**F**, JMW1100**19**F**, JMW1100**24**F**, MENB1100*12**F**, MENB1100*13**F**, MENB1100*15**F**, MENB1100*16**F**, MENB1100*18**F**, MENB1100*19**F**, MENB1100*24**F** (Where * may be alphanumeric, "for marketing purpose and no impact safety related critical components and constructions") |
| | |

Enclosures

Misc ID 7-04

| | |
|---|---|
| Additional information (if necessary) | |
| | |
| A sample of the product was tested and found to be in conformity with | inclusive of CENELEC Common Modifications. See Test Report for National Differences. |
| | |
| As shown in the Test Report Ref. No. which forms part of this Certificate | E300305-A33 |

| | |
|---|---|
| Client Representative | JONG-NAM JEON |
| | |
| Client email (or fax) | jjweb@bridgepower.co.kr |

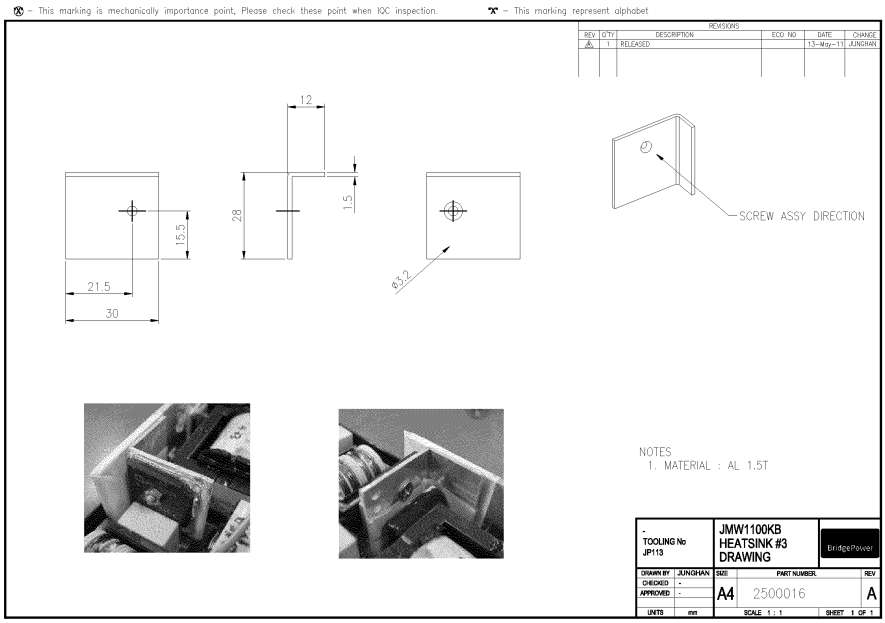
This form is to acknowledge that the above information has been reviewed and the material has been found to be accurate as stated. This is also to record client's confirmation that above factories manufacture product(s) that are equal to those submitted for testing and certification. (Refer to IECEE 02, Sub-clause 6.2.5: "When the application covers more than one factory, the address of each factory shall be stated in the CB Test Certificate and the NCB shall take steps to ensure that the products from all the factories are equal. That shall be confirmed in the Test Report.")

Signed: Dated: 2011-08-05

*Definitions per IECEE 02 (http://www.iecee.com/cbscheme/pdf/IECEE02.pdf):
Applicant: A firm or a person who applies to an NCB for obtaining a CB Test Certificate.
Manufacturer: An organization, situated at a stated location or locations, that carries out or controls such stages in the manufacture, assessment, handling and storage of a product that enables it to accept responsibility for continued compliance of the product with the relevant requirements and undertakes all obligations in that connection.
Factory: The location(s) at which the product is produced or assembled and follow-up service is established by the NCB.

Enclosures

Misc ID 7-06



Enclosures

Misc ID 7-07

| DATE | 2011.03.14 |
|---|---|
| FILE No. | JL - |

# 仕 様 承 認 書

SPECIFICATION FOR APPROVAL

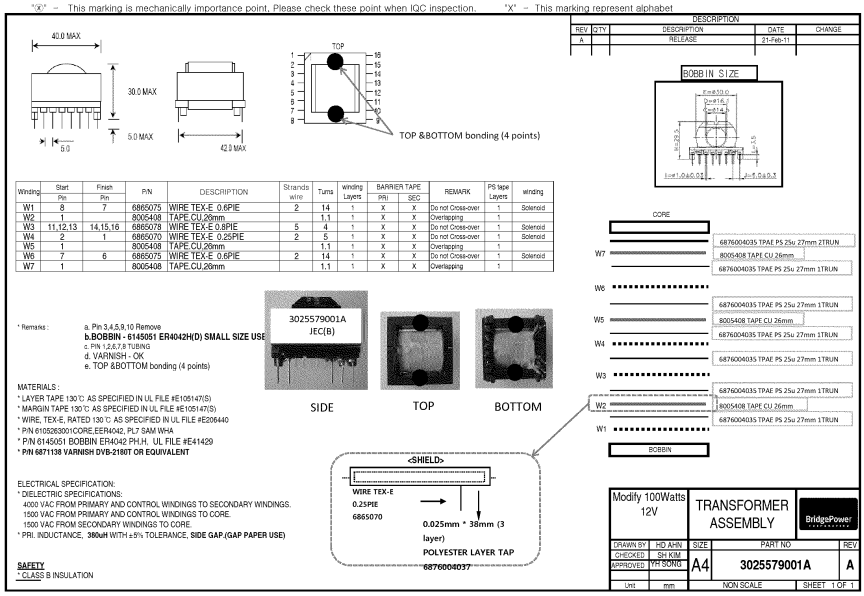
MODEL : JMW1100KB
PART NO : 3025579001A

상기 제품에 대해 승인합니다.

| | | | |
|---|---|---|---|
| BRIDGE | 검토자 | 검토자 | 승인자 |
| | | | |
| | | | |
| BRIDGE | 구분 | 작성자 | |
| | 소속/성명 | 이 규 홍 | |
| | 서명 | | |

Enclosures

Misc ID 7-07


"@" → This marking is mechanically importance point, Please check these point when IQC inspection.
"X" → This marking represent alphabet
DESCRIPTION
REV | QTY | DESCRIPTION | DATE | CHANGE
A | | RELEASE | 21-Feb-11 |
40.0 MAX
30.0 MAX
5.0 MAX
5.0
42.0 MAX
TOP
TOP &BOTTOM bonding (4 points)
BOBBIN SIZE
Winding | Start Pin | Finish Pin | P/N | DESCRIPTION | Strands wire | Turns | winding Layers | BARRIER TAPE PRI | BARRIER TAPE SEC | REMARK | PS tape Layers | winding
W1 | 8 | 7 | 6865075 | WIRE TEX-E 0.6PIE | 2 | 14 | 1 | X | X | Do not Cross-over | 1 | Solenoid
W2 | 1 | | 8005408 | TAPE CU,26mm | | 1.1 | 1 | X | X | Overlapping | 1 |
W3 | 11,12,13 | 14,15,16 | 6865078 | WIRE TEX-E 0.8PIE | 5 | 4 | 1 | X | X | Do not Cross-over | 1 | Solenoid
W4 | 2 | 1 | 6865070 | WIRE TEX-E 0.25PIE | 2 | 5 | 1 | X | X | Do not Cross-over | 1 | Solenoid
W5 | 1 | | 8005408 | TAPE CU,26mm | | 1.1 | 1 | X | X | Overlapping | 1 |
W6 | 7 | 6 | 6865075 | WIRE TEX-E 0.6PIE | 2 | 14 | 1 | X | X | Do not Cross-over | 1 | Solenoid
W7 | 1 | | 8005408 | TAPE,CU,26mm | | 1.1 | 1 | X | X | Overlapping | 1 |
* Remarks :
a. Pin 3,4,5,9,10 Remove
b.BOBBIN - 6145051 ER4042H(D) SMALL SIZE USE
c. PIN 1,2,6,7,8 TUBING
d. VARNISH - OK
e. TOP &BOTTOM bonding (4 points)
3025579001A
JEC(B)
SIDE
TOP
BOTTOM
MATERIALS :
* LAYER TAPE 130℃ AS SPECIFIED IN UL FILE #E105147(S)
* MARGIN TAPE 130℃ AS SPECIFIED IN UL FILE #E105147(S)
* WIRE, TEX-E, RATED 130℃ AS SPECIFIED IN UL FILE #E206440
* P/N 6105263001CORE,EER4042, PL7 SAM WHA
* P/N 6145051 BOBBIN ER4042 PH.H. UL FILE #E41429
* P/N 6871138 VARNISH DVB-2180T OR EQUIVALENT
ELECTRICAL SPECIFICATION:
* DIELECTRIC SPECIFICATIONS:
4000 VAC FROM PRIMARY AND CONTROL WINDINGS TO SECONDARY WINDINGS.
1500 VAC FROM PRIMARY AND CONTROL WINDINGS TO CORE.
1500 VAC FROM SECONDARY WINDINGS TO CORE.
* PRI. INDUCTANCE, 380uH WITH ±5% TOLERANCE, SIDE GAP,(GAP PAPER USE)
SAFETY
* CLASS B INSULATION
<SHIELD>
WIRE TEX-E
0.25PIE
6865070
0.025mm * 38mm (3 layer)
POLYESTER LAYER TAP
6876004037
CORE
W7
6876004035 TPAE PS 25u 27mm 2TRUN
8005408 TAPE CU 26mm
6876004035 TPAE PS 25u 27mm 1TRUN
W6
6876004035 TPAE PS 25u 27mm 1TRUN
W5
8005408 TAPE CU 26mm
6876004035 TPAE PS 25u 27mm 1TRUN
W4
6876004035 TPAE PS 25u 27mm 1TRUN
W3
6876004035 TPAE PS 25u 27mm 1TRUN
W2
8005408 TAPE CU 26mm
6876004035 TPAE PS 25u 27mm 1TRUN
W1
BOBBIN
Modify 100Watts 12V
TRANSFORMER ASSEMBLY
BridgePower
DRAWN BY | HD AHN
CHECKED | SH KIM
APPROVED | YH SONG
SIZE | A4
PART NO | 3025579001A
REV | A
Unit | mm
NON SCALE
SHEET 1 OF 1

Enclosures

Misc ID 7-07

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| ITEM | S/W TRANSFORMER | PART NO | 3025579001A | REV | A |

**Insulating Tape - Component**

See General Information for Insulating Tape - Component

DUCK SUNG HITECH CO LTD
DAESUNG BLDG
677 JAYANG-DONG
KWANG JIN-KU
SEOUL, 133-190 REPUBLIC OF KOREA

E105147

**Polyester film insulating tape, acrylic adhesive**, Cat. No. DTS-204, rated 130 C.

**Acetate cloth insulating tape, acrylic adhesive**, Cat. No. 231*, rated 105 C.

**Glass cloth insulating tape, rubber adhesive**, Cat. No. 220-B, rated 130 C.

**Glass cloth insulating tape, silicone adhesive**, Cat. No. 221H*, rated 180 C.

**Acetate cloth insulating tape, rubber adhesive**, Cat. No. DTS-230, rated 105 C.

**Nomex (Aramid fiber) film insulating tape with non-woven polyester fiber reinforcement, acrylic adhesive**, Cat. No. DTS-241*, rated 130 C.

**Polyester film insulating tape, acrylic adhesive**, Cat. No. DTS-280*, rated 130 C.

**PET (Polyethylene-Terapthalate) film insulating tape, synthetic rubber adhesive** , Cat. No. DTS -204R %, rated 130 C.

**PET(Polyethylene-Terapthalate) film insulated tape, acrylic adhesive**, Cat. No. DTS-204F*#, rated 130C.

**Flame retardant cotton cloth tape, rubber adhesive**, Cat. No. DTS-250F*+.

**Flame retardant acetate cloth tape, rubber adhesive**, Cat. No. DTS-232F+.

**Flame retardant Aluminum foil tape, acrylic adhesive**, Cat. No. DTS-800A+.

**Flame retardant Aluminum foil with PET (Polyethylene-Terapthalate )film tape, acrylic adhesive**, Cat. No. DTS-810+.

**Flame retardant Copper foil tape, acrylic adhesive**, Cat. No. DTS-820+.

**Flame retardant Nickel coated Polyester Fiber tape, acrylic adhesive**, Cat. No. DTS-830+.

Glass cloth insulating tape, acrylic adhesive, Cat. No. DTS-221F*, rated 155 C.

**PET ( Polyethylene-Terapthalate) film insulating tape with non-woven polyester fiber reinforcement, rubber adhesive** , Cat. No. DTS-280R@, rated 130C.

**PET (Polyethylene-Terapthalate) film insulating tape, acrylic adhesive** , Cat. No. DTS-204BB, rated 130 C.

**PET (Polyethylene-Terapthalate) film insulating tape, acrylic adhesive** , Cat. No. DTS-204K^, rated 130 C.

**PET(Polyethylene-Terapthalate) film insulating tape, acrylic adhesive** , Cat. No. DTS-207S, rated 130C.

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
|---|---|---|---|---|---|
| | | | A | 2010.03.14 | |
| | | | | | |
| | | | | | |

Enclosures

Misc ID 7-07

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| ITEM | S/W TRANSFORMER | PART NO | 3025579001A | REV | A |

QMFZ2 Component - Plastics Friday, October 24, 2003 E41429

**SUMITOMO BAKELITE CO LTD**
5-8 HIGASHI-SHINAGAWA 2-CHOME SHINAGAWA-KU TOKYO 140-0002 JP

Material Designation: PM-9820

Product Description: Phenolic (PF), designated "Sumikon" furnished as pellets, granular material.

| Color | Min. Thick. (mm) | Flame Class | HWI | HAI | RTI Elec | RTI Imp | RTI Str | IEC GWIT | IEC GWFI |
|---|---|---|---|---|---|---|---|---|---|
| BK | 0.16 | V-0 | - | - | 150 | 150 | 150 | - | - |
| | 0.51 | V-0 | 3 | 1 | 150 | 150 | 150 | - | - |
| BN | 0.18 | V-0 | - | - | 150 | 150 | 150 | - | - |
| | 0.70 | V-0 | 1 | 2 | 150 | 150 | 150 | - | - |
| | 1.5 | V-0 | 0 | 2 | 150 | 150 | 150 | - | - |
| | 3.0 | V-0 | 0 | 2 | 150 | 150 | 150 | - | - |

**CTI:** 3 **IEC CTI** (V): - **HVTR:** 0 **D495:** 5 **IEC Ball Pressure** (°C): -

**Dielectric Strength** (kV/mm): 14 **Volume Resistivity** ($10^x$ohm-cm): 11 **Dimensional Stability**(%): -
**ISO Tensile Strength** (MPa): - **ISO Flexural Strength** (MPa): - **ISO Heat Deflection** (°C): -
**ISO Tensile Impact** (kJ/m$^2$): - **ISO Izod Impact** (kJ/m$^2$): - **ISO Charpy Impact** (kJ/m$^2$): -

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
|---|---|---|---|---|---|
| | | | A | 2011.03.14 | |
| | | | | | |
| | | | | | |

Misc ID 7-07

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| ITEM | S/W TRANSFORMER | PART NO | 3025579001A | REV | A |

OBMW2 June 19, 1999

Magnet Wire--Component
DONG YANG ELECTRONICS IND CO LTD E102781
680-1 BANWOL-RI TAEAN-EUP HWASEONG-GUN, KYUNGGI-DO
445-930 KOREA

| | Coat Type | | ANSI | |
|---|---|---|---|---|
| Mil Desg | BC | OC | Type | TI |
| AI-EIW | Polyester-imide | Polyamide | MW30 | 200 |
| DSB-EIA | Ester-imide | Polyamide | MW76 | 180 |
| DSB-EIA(B) | Solderable ester-imide | Polyamide | MW78 | 180 |
| EIW | Polyester-imide | | MW30 | 180 |
| NY-EIW | Polyester-imide-imide | Polyamide | MW76 | 180 |
| NY-HEW | Polyester | Polyamide | MW24 | 155 |
| NY-PEW(F) | Polyester | Polyamide | MW24 | 155 |
| NY-UEW | Polyurethane | Polyamide | MW80 | 155 |
| | | | MW28 | 130 |

1/29/2001 Underwriters Laboratories Inc. Card 1 of 2

OBMW2 June 19, 1999

Magnet Wire--Component
DONG YANG ELECTRONICS IND CO LTD E102781

| | Coat Type | | ANSI | |
|---|---|---|---|---|
| Mil Desg | BC | OC | Type | TI |
| UEW | Polyurethane | -- | MW79 | 155 |
| | | | MW75 | 130 |

Marking Company name or "E102781" and material designation or marker designation on package or reel and Recognized Component Mark.

See General Information Preceding These Recognitions.
For use only in equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

1/29/2001 Underwriters Laboratories Inc. Card 2 of 2

**FURUKAWA ELECTRIC CO LTD** E206440
HIRATSUKA MAGNET WIRE WORKS
5-1-9 HIGASHI YAHATA
HIRATSUKA-SHI, KANAGAWA 254-0016 JAPAN

Cat. Nos. FSX-E, SX-E, basic insulation rated 120° C (Class E), 354 V peak for Information Technology Equipment, 40 - 29 AWG (0.08 - 0.30 mm).

Cat. No. FWX-E, supplementary insulation or basic insulation rated 120° C (Class E), 354 V peak for Information Technology Equipment, 40 - 29 AWG (0.08 - 0.30 mm).

Cat. Nos. TEX-E, TEX-EA, reinforced insulation rated 130° C (Class B), 1.41 kV peak for Information Technology Equipment, 32-18 AWG (0.20 - 1.0 mm).

Cat. No. TEX-ELZ, reinforced insulation rated 130° C, (Class B), 1.41 kV peak for Information Technology Equipment, 30 AWG - 21 AWG (7strands each 0.10 mm - 7 strands each 0.30 mm).

Cat. No. TEX-ECEW3, reinforced insulation rated 130° C (Class B), 1.41 kV peak for Information Technology Equipment, 33 - 19 AWG (0.18 - 0.912 mm).

Cat. No. TEX-B, reinforced insulation rated 130° C (Class B), 1.4 kV peak for Information Technology Equipment, 32 - 18 AWG (0.20 - 1.0 mm).

Cat. No. TEX-FS, reinforced insulation rated 155° C (Class F), 250 V rms for medical and dental equipment, and 1.41 kV peak for Information Technology Equipment, 32-18 AWG (0.20 - 1.0 mm).

Cat No. TEX-BS, reinforced insulation rated 130° C (Class B), 1.41 kV peak for Information Technology Equipment, 32-18 AWG (0.20 - 1.0 mm).

Cat. Nos. FSX-B, basic insulation rated 130° C (Class B), 354 V peak for Information Technology Equipment, 0.19 - 0.11 mm).

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
|---|---|---|---|---|---|
| | | | A | 2011.03.14 | |
| | | | | | |
| | | | | | |

Enclosures

Misc ID 7-07

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| ITEM | S/W TRANSFORMER | PART NO | 3025579001A | REV | A |

**LS CABLE LTD**
LS TOWER 1026-6
HOGYE-DONG
DONGAN-GU
ANYANG-CITY, KYUNGKI-DO 431-080 REPUBLIC OF KOREA

E84393

| Cat. No. | Max V | Max Oper Temp | Shrinkdown Class | Col Recognized | VW-1 Rated # |
|---|---|---|---|---|---|
| **Flexible heat shrinkable polyolefin tubing.** | | | | | |
| GSHS-1605G | 600 | 105 | I | All except Clear | Yes |
| GSHS-1625G | 600 | 125 | I | All except Clear | Yes |
| GSHS-1635F | 600 | 125 | I | All except Clear | Yes |
| GSHS-1625LT | 600 | 125 | I | All except Clear | Yes |
| GSHS-1605 | 600 | 105 | I | All except Clear | Yes |
| GSHS-1625 | 600 | 125 | I | All except Clear | Yes |
| GSHS-3635 | 600 | 125 | I | All except Clear | Yes |
| GSHS-1625T | 150 | 125 | I | All except Clear | Yes |
| GSHS-1625GT | 300 | 125 | I | All except Clear | Yes |
| LS-PMWT-FR | 600 | 125 | I | All except Clear | Yes |
| LS-PHWT-FR | 600 | 125 | I | All except Clear | Yes |
| **Rigid, heat shrinkable PVF2 tubing.** | | | | | |
| GSHS-1675, -3675, -1650F | 600 | 150 | I | All, CL | Yes |
| **Not heat shrinkable PVC tubing.** | | | | | |
| VIT-300 | 300 | 105 | ? | All, CL | Yes |
| VIT-600 | 600 | 105 | ? | All, CL | Yes |
| **Not heat shrinkable Polyolefin tubing.** | | | | | |
| FEIT | 600 | 105 | ? | Gray | Yes |

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
|---|---|---|---|---|---|
| | | | A | 2011.03.14 | |
| | | | | | |
| | | | | | |

Enclosures

Misc ID 7-08

| DATE | 2011.03.14 |
|---|---|
| FILE No. | JL - |

# 仕 様 承 認 書

SPECIFICATION FOR APPROVAL

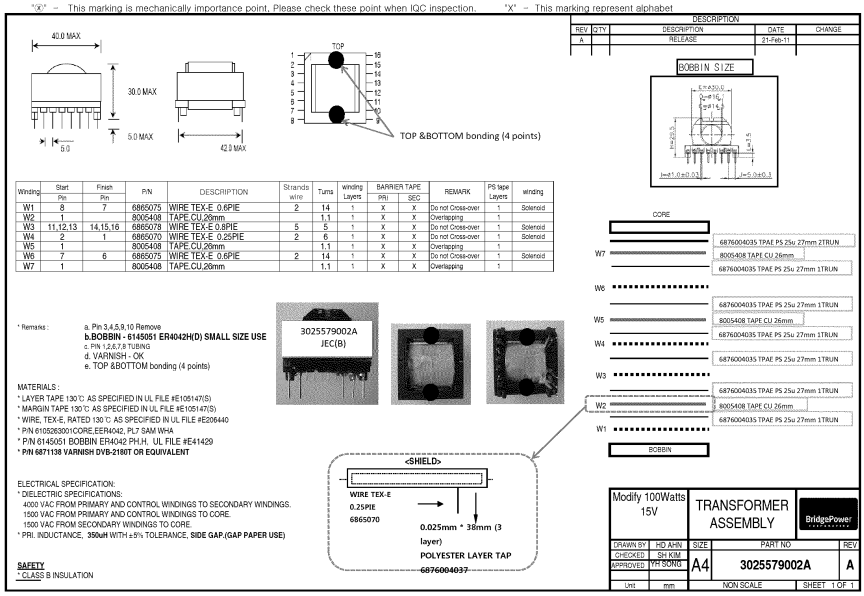
MODEL : JMW1100KB
PART NO : 3025579002A

상기 제품에 대해 승인합니다.

| | | | |
|---|---|---|---|
| BRIDGE | 검토자 | 검토자 | 승인자 |
| | | | |
| | | | |
| BRIDGE | 구분 | 작성자 | |
| | 소속/성명 | 이 규 홍 | |
| | 서명 | | |

Enclosures

Misc ID 7-08




| Winding | Start Pin | Finish Pin | P/N | DESCRIPTION | Strands wire | Turns | winding Layers | BARRIER TAPE PRI | BARRIER TAPE SEC | REMARK | PS tape Layers | winding |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W1 | 8 | 7 | 6865075 | WIRE TEX-E 0.6PIE | 2 | 14 | 1 | X | X | Do not Cross-over | 1 | Solenoid |
| W2 | 1 | | 8005408 | TAPE CU,26mm | | 1.1 | 1 | X | X | Overlapping | 1 | |
| W3 | 11,12,13 | 14,15,16 | 6865078 | WIRE TEX-E 0.8PIE | 5 | 5 | 1 | X | X | Do not Cross-over | 1 | Solenoid |
| W4 | 2 | 1 | 6865070 | WIRE TEX-E 0.25PIE | 2 | 6 | 1 | X | X | Do not Cross-over | 1 | Solenoid |
| W5 | 1 | | 8005408 | TAPE CU,26mm | | 1.1 | 1 | X | X | Overlapping | 1 | |
| W6 | 7 | 6 | 6865075 | WIRE TEX-E 0.6PIE | 2 | 14 | 1 | X | X | Do not Cross-over | 1 | Solenoid |
| W7 | 1 | | 8005408 | TAPE,CU,26mm | | 1.1 | 1 | X | X | Overlapping | 1 | |

Enclosures

Misc ID 7-08

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| ITEM | S/W TRANSFORMER | PART NO | 3025579002A | REV | A |

**Insulating Tape - Component**

See General Information for Insulating Tape - Component

DUCK SUNG HITECH CO LTD
DAESUNG BLDG
677 JAYANG-DONG
KWANG JIN-KU
SEOUL, 133-190 REPUBLIC OF KOREA

E105147

**Polyester film insulating tape, acrylic adhesive**, Cat. No. DTS-204, rated 130 C.

**Acetate cloth insulating tape, acrylic adhesive**, Cat. No. 231*, rated 105 C.

**Glass cloth insulating tape, rubber adhesive**, Cat. No. 220-B, rated 130 C.

**Glass cloth insulating tape, silicone adhesive**, Cat. No. 221H*, rated 180 C.

**Acetate cloth insulating tape, rubber adhesive**, Cat. No. DTS-230, rated 105 C.

**Nomex (Aramid fiber) film insulating tape with non-woven polyester fiber reinforcement, acrylic adhesive**, Cat. No. DTS-241*, rated 130 C.

**Polyester film insulating tape, acrylic adhesive**, Cat. No. DTS-280*, rated 130 C.

**PET (Polyethylene-Terapthalate) film insulating tape, synthetic rubber adhesive** , Cat. No. DTS -204R %, rated 130 C.

**PET(Polyethylene-Terapthalate) film insulated tape, acrylic adhesive**, Cat. No. DTS-204F*#, rated 130C.

**Flame retardant cotton cloth tape, rubber adhesive**, Cat. No. DTS-250F*+.

**Flame retardant acetate cloth tape, rubber adhesive**, Cat. No. DTS-232F+.

**Flame retardant Aluminum foil tape, acrylic adhesive**, Cat. No. DTS-800A+.

**Flame retardant Aluminum foil with PET (Polyethylene-Terapthalate )film tape, acrylic adhesive**, Cat. No. DTS-810+.

**Flame retardant Copper foil tape, acrylic adhesive**, Cat. No. DTS-820+.

**Flame retardant Nickel coated Polyester Fiber tape, acrylic adhesive**, Cat. No. DTS-830+.

**Glass cloth insulating tape, acrylic adhesive**, Cat. No. DTS-221F*, rated 155 C.

**PET ( Polyethylene-Terapthalate) film insulating tape with non-woven polyester fiber reinforcement, rubber adhesive** , Cat. No. DTS-280R@, rated 130C.

**PET (Polyethylene-Terapthalate) film insulating tape, acrylic adhesive** , Cat. No. DTS-204BB, rated 130 C.

**PET (Polyethylene-Terapthalate) film insulating tape, acrylic adhesive** , Cat. No. DTS-204K^, rated 130 C.

**PET(Polyethylene-Terapthalate) film insulating tape, acrylic adhesive** , Cat. No. DTS-207$, rated 130C.

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
|---|---|---|---|---|---|
| | | | A | 2008.07.17 | |
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Misc ID 7-08

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| **ITEM** | S/W TRANSFORMER | **PART NO** | **3025579002A** | **REV** | **A** |

QMFZ2 Component - Plastics Friday, October 24, 2003 E41429

**SUMITOMO BAKELITE CO LTD**
5-8 HIGASHI-SHINAGAWA 2-CHOME SHINAGAWA-KU TOKYO 140-0002 JP

Material Designation: PM-9820

Product Description: Phenolic (PF), designated "Sumikon" furnished as pellets, granular material.

| Color | Min. Thick. (mm) | Flame Class | HWI | HAI | RTI Elec | RTI Imp | RTI Str | IEC GWIT | IEC GWFI |
|---|---|---|---|---|---|---|---|---|---|
| BK | 0.16 | V-0 | - | - | 150 | 150 | 150 | - | - |
| | 0.51 | V-0 | 3 | 1 | 150 | 150 | 150 | - | - |
| BN | 0.18 | V-0 | - | - | 150 | 150 | 150 | - | - |
| | 0.70 | V-0 | 1 | 2 | 150 | 150 | 150 | - | - |
| | 1.5 | V-0 | 0 | 2 | 150 | 150 | 150 | - | - |
| | 3.0 | V-0 | 0 | 2 | 150 | 150 | 150 | - | - |

**CTI:** 3 **IEC CTI** (V): - **HVTR:** 0 **D495:** 5 **IEC Ball Pressure** (°C): -

**Dielectric Strength** (kV/mm): 14 **Volume Resistivity** ($10^x$ohm-cm): 11 **Dimensional Stability**(%): -
**ISO Tensile Strength** (MPa): - **ISO Flexural Strength** (MPa): - **ISO Heat Deflection** (°C): -
**ISO Tensile Impact** (kJ/m$^2$): - **ISO Izod Impact** (kJ/m$^2$): - **ISO Charpy Impact** (kJ/m$^2$): -

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
|---|---|---|---|---|---|
| | | | A | 2011.03.14 | |
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Enclosures

Misc ID 7-08

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| ITEM | S/W TRANSFORMER | PART NO | 3025579002A | REV | A |

OBMW2 June 19, 1999

Magnet Wire--Component

DONG YANG ELECTRONICS IND CO LTD E102781

880-1 BANWOL-RI TAEAN-EUP, HWASEONG-GUN, KYUNGGI-DO 445-930 KOREA

| | Coat Type | | ANSI | |
|---|---|---|---|---|
| Mil Desg | BC | OC | Type | TI |
| AI-EIW | Polyester-imide | Polyamide | MW30 | 200 |
| DSB-EIA | Ester-imide | Polyamide | MW76 | 180 |
| DSB-EIA(B) | Solderable ester-imide | Polyamide | MW78 | 180 |
| EIW | Polyester-imide | | MW30 | 180 |
| NY-EIW | Polyester-imide-imide | Polyamide | MW76 | 180 |
| NY-MEW | Polyester | Polyamide | MW24 | 155 |
| NY-PEW(F) | Polyester | Polyamide | MW24 | 155 |
| NY-UEW | Polyurethane | Polyamide | MW80 | 155 |
| | | | MW28 | 130 |

1/29/2001 Underwriters Laboratories Inc. Card 1 of 2

OBMW2 June 19, 1999

Magnet Wire--Component

DONG YANG ELECTRONICS IND CO LTD E102781

| | Coat Type | | ANSI | |
|---|---|---|---|---|
| Mil Desg | BC | OC | Type | TI |
| UEW | Polyurethane | -- | MW79 | 155 |
| | | | MW75 | 130 |

Marking Company name or "E102781" and material designation or marked designation on package or reel and Recognized Component Mark.

See General Information Preceding These Recognitions.

For use only in equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

1/29/2001 Underwriters Laboratories Inc. Card 2 of 2

**FURUKAWA ELECTRIC CO LTD** E206440

HIRATSUKA MAGNET WIRE WORKS

5-1-9 HIGASHI YAHATA

HIRATSUKA-SHI, KANAGAWA 254-0016 JAPAN

Cat. Nos. FSX-E, SX-E, basic insulation rated 120° C (Class E), 354 V peak for Information Technology Equipment, 40 - 29 AWG (0.08 - 0.30 mm).

Cat. No. FWX-E, supplementary insulation or basic insulation rated 120° C (Class E), 354 V peak for Information Technology Equipment, 40 - 29 AWG (0.08 - 0.30 mm).

Cat. Nos. TEX-E, TEX-EA, reinforced insulation rated 130° C (Class B), 1.41 kV peak for Information Technology Equipment, 32-18 AWG (0.20 - 1.0 mm).

Cat. No. TEX-ELZ, reinforced insulation rated 130° C, (Class B), 1.41 kV peak for Information Technology Equipment, 30 AWG - 21 AWG (7strands each 0.10 mm - 7 strands each 0.30 mm).

Cat. No. TEX-ECEW3, reinforced insulation rated 130° C (Class B), 1.41 kV peak for Information Technology Equipment, 33 - 19 AWG (0.18 - 0.912 mm).

Cat. No. TEX-B, reinforced insulation rated 130° C (Class B), 1.4 kV peak for Information Technology Equipment, 32 - 18 AWG (0.20 - 1.0 mm).

Cat. No. TEX-FS, reinforced insulation rated 155° C (Class F), 250 V rms for medical and dental equipment, and 1.41 kV peak for Information Technology Equipment, 32-18 AWG (0.20 - 1.0 mm).

Cat No. TEX-BS, reinforced insulation rated 130° C (Class B), 1.41 kV peak for Information Technology Equipment, 32-18 AWG (0.20 - 1.0 mm).

Cat. Nos. FSX-B, basic insulation rated 130° C (Class B), 354 V peak for Information Technology Equipment, 0.19 - 0.11 mm).

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
|---|---|---|---|---|---|
| | | | A | 2011.03.14 | |
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Enclosures

Misc ID 7-08

| S P E C I F I C A T I O N S | | | | | |
|---|---|---|---|---|---|
| ITEM | S/W TRANSFORMER | PART NO | 3025579002A | REV | A |

**LS CABLE LTD** E84393
LS TOWER 1026-6
HOGYE-DONG
DONGAN-GU
ANYANG-CITY, KYUNGKI-DO 431-080 REPUBLIC OF KOREA

| Cat. No. | Max V | Max Oper Temp | Shrinkdown Class | Col Recognized | VW-1 Rated # |
|---|---|---|---|---|---|
| **Flexible heat shrinkable polyolefin tubing.** | | | | | |
| GSHS-1605G | 600 | 105 | I | All except Clear | Yes |
| GSHS-1625G | 600 | 125 | I | All except Clear | Yes |
| GSHS-1635F | 600 | 125 | I | All except Clear | Yes |
| GSHS-1625LT | 600 | 125 | I | All except Clear | Yes |
| GSHS-1605 | 600 | 105 | I | All except Clear | Yes |
| GSHS-1625 | 600 | 125 | I | All except Clear | Yes |
| GSHS-3635 | 600 | 125 | I | All except Clear | Yes |
| GSHS-1625T | 150 | 125 | I | All except Clear | Yes |
| GSHS-1625GT | 300 | 125 | I | All except Clear | Yes |
| LS-PMWT-FR | 600 | 125 | I | All except Clear | Yes |
| LS-PHWT-FR | 600 | 125 | I | All except Clear | Yes |
| **Rigid, heat shrinkable PVF2 tubing.** | | | | | |
| GSHS-1675, -3675, -1650F | 600 | 150 | I | All, CL | Yes |
| **Not heat shrinkable PVC tubing.** | | | | | |
| VIT-300 | 300 | 105 | ? | All, CL | Yes |
| VIT-600 | 600 | 105 | ? | All, CL | Yes |
| **Not heat shrinkable Polyolefin tubing.** | | | | | |
| FEIT | 600 | 105 | ? | Gray | Yes |

| DESIGN | APPROVAL | FILE NO | REV | DATE | REVISIONS |
|---|---|---|---|---|---|
| | | | A | 2011.03.14 | |
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Enclosures

Misc ID 7-09

# ATTACHMENT TO TEST REPORT IEC 60950.1-2005 CHINA- NATIONAL DIFFERENCES

(Information technology equipment Safety – Part 1: General requirements)

| | |
|---|---|
| **Differences according to**..... : | National standard GB 4943.1--2011 |
| **Attachment Form No.** : | (CN )_ND_IEC60950-1:2005(2nd Edition); |
| **Attachment Originator** ..... : | CQC-TIRT |
| **Master Attachment**..... : | Date 2012-06 |

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| | IEC60950-1 **National Differences** | | |
|---|---|---|---|
| | | | |
| Clause | Requirement + Test | Result - Remark | Verdict |
| | | | |
| 1.5. 2 | Add a note behind the first dashed paragraph.<br>Note: A component used shall comply with related requirements corresponding altitude of 5000m. | | Pass |
| 1.7 | Add a paragraph before the last paragraph:<br>The required marking and instruction should be given in normative Chinese unless otherwise specified. | | Pass |
| 1.7.1 | Amend dashed paragraph at the fifth paragraph :<br>The RATED VOLTAGE should be 220V (single phase) or 380V (three-phases) for single rated voltage, for RATED VOLTAGE RANGE, it should cover 220V or 380V (three-phases), for multiple RATED VOLTAGES, one of them should be 220V or 380V (three-phases) and set on 220V or 380V (three-phases) when manufactured.<br>And the RATED FREQUENCY or RATED FREQUENCY RANGE should be 50Hz or include 50Hz. | Rated voltage ; 100-240Vac, 50/60Hz | Pass |

Enclosures

Misc ID 7-09

| | | | |
|---|---|---|---|
| 1.7.2.1 | Add requirements of warning for equipment intended to be used at altitude not exceeding 2000m or at non-tropical climate regions:<br>For equipment intended to be used at altitude not exceeding 2000m, a warning label containing the following or a similar appropriate wording, or a symbol as in annex DD shall fixed to the equipment at readily visible place.<br>"Only used at altitude not exceeding 2000m."<br> <br>For equipment intended to be used in not-tropical climate regions, a warning label containing the following or a similar appropriate wording, or a symbol as in annex DD shall fixed to the equipment at readily visible place.<br>"Only used in not-tropical climate regions."<br> <br>If only the symbol used, the explanation of the symbol shall be contained in the instruction manual.<br>The above statements shall be given in a language acceptable to the regions where the apparatus is intended to be used. | Up to 5000m and Used in tropical climate regions | Pass |
| 2.7.1 | Amended the first paragraph as:<br>Protection in PRIMARY CIRCUITS against overcurrent short-circuits and earth faults shall be provided as an integral part of the equipment except special provisions. And the protective device shall meet the requirement of Clause 5.3.<br>Delete note of Clause 2.7.1. | | Pass |
| 2.9.2 | First section of Clause 2.9.2 amended as two sections:<br>Where required by 2.9.1, 2.10.8.3, 2.10.10 or 2.10.11, humidity conditioning is conducted for 120 h in a cabinet or room containing air with ambient temperature 40±2℃ and a relative humidity of (93 ±3)%. During this conditioning the component or subassembly is not energized.<br>For equipment not to be operated at tropical climatic conditions, Where required by 2.9.1, 2.10.8.3, 2.10.10 or 2.10.11, humidity conditioning is conducted for 48 h in a cabinet or room containing air with a relative humidity of (93±3) %. The temperature of the air, at all places where samples can be located, is maintained within 2 ℃ of any convenient value between 20 ℃ and 30 ℃ such that condensation does not occur.<br>Due to pretreatment of equipment operated at high altitude area is humidity conditioning withstand hot shock, specific requirements are to be considered.<br><br>Add note: For equipment to be operated at 2000 m - 5000m above sea level, assessment and requirement of humidity conditioning for Insulation material properties are considered. | 95%, 40degreeC humidity test was conducted (120hours) | Pass |

Misc ID 7-09

| | | | |
|---|---|---|---|
| 2.10.3.1 | Amend the third paragraph of Clause 2.10.3.1 to be:<br>These requirements apply for equipment to be operated up to 2000 m above sea level. For equipment to be operated at more than 2000 m above sea level and up to 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of IEC 60664-1. For equipment to be operated at more than 5000 m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of IEC 60664-1. Linear interpolation is permitted between the nearest two points in Table A.2. The calculated minimum CLEARANCE using this multiplication factor shall be rounded up to the next higher 0,1 mm increment. | | Pass |
| 2.10.3.3&<br>2.10.3.4 | Add "(applicable for altitude up to 2000m)" in header of Table 2K、2L and 2M. | | Pass |
| 2.10.3.4 | Add a new section above Table 2K and in Clause 2.10.3.4:<br>Minimum CLEARANCES determined by above rules apply for equipment to be operated up to 2000m above sea level. For equipment operated at 2000 m - 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of GB/T16935.1（ IEC 60664-1）. For equipment to be operated at more than 5000 m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of GB/T16935.1. | Altitude of operation is up to 2000m to up to 5000m refer to IEC 60664-1 table A.2 | Pass |
| 3.2.1.1 | Add a paragraph before the last paragraph:<br>Plugs connected to AC mains supply shall comply with GB 1002 or GB 1003 or GB/T 11918 as applicable. | | Pass |
| 4.2.8 | Clause 4.2.8 cathode ray tubes quoted Clause 18 of GB8898-2011.<br>Delete note of Clause 4.2.8. | | N/A |
| Annex E | Amend last section:<br>For comparison of winding temperatures determined by the resistance method of this annex with the temperature limits of Table 4B, 35 ℃ shall be added to the calculated temperature rise.<br>Add note: for equipment not to be operated at tropical climatic conditions, 25 ℃ shall be added to the calculated temperature rise to compare with the temperature of Table 4B. | Tma is 35℃ | Pass |

Enclosures

Misc ID 7-09

| | | | |
|---|---|---|---|
| Annex G.6 | Change the second section of Clause G.6 to be: For equipment to be operated at 2000 m - 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of GB/T16935.1. For equipment to be operated at more than 5000 m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of IEC 60664-1. Linear interpolation is permitted between the nearest two points in Table A.2. The calculated minimum CLEARANCE using this multiplication factor shall be rounded up to the next higher 0,1 mm increment. | | Pass |
| Annex DD (normative) | Added annex DD: Instructions for the new safety warning labels.<br>DD.1 Altitude warning label <br>Meaning of the label: Evaluation for apparatus only based on altitude not exceeding 2000m, therefor it's the only operating condition applied for the equipment .There may be some potential safety hazard if the equipment is used at altitude above 2000m.<br>DD.2 Climate warning label <br>Meaning of the label: Evaluation for apparatus only based on temperate climate condition, therefor it's the only operating condition applied for the equipment .There may be some potential safety hazard if the equipment is used in tropical climate region. | | N/A |
| Annex EE (informative) | Added annex EE:<br>Illustration relative to safety explanation in normative Chinese、Tibetan、Mongolian、Zhuang Language and Uighur. | | Pass |
| | | | |

| | Special national conditions | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 1.1.2 | GB4943.1-2011 applies to equipment used<br>at altitudes not exceeding 5000m above sea level,<br>primarily in regions with moderate or tropical<br>climates.<br>Revise the third dashed paragraph of 1.1.2 as:<br>——equipment intended to be used in vehicles, on board ships or aircraft, at altitudes greater than 5000m; | | N/A |
| 1.4.5 | Amend the second paragraph by the following:<br>If the equipment is intended for direct connection to an AC mains supply, the tolerances on RATED VOLTAGE shall be taken as +10% and -10%. | | Pass |

Enclosures

Misc ID 7-09

| | | | |
|---|---|---|---|
| 1.4.12.1 | $T_{ma}$: The maximum ambient temperature permitted by the manufacturer's specification, or 35 °C, whichever is greater.<br>Add note 1: For equipment not to be operated at tropical climatic conditions, $T_{ma}$ is the maximum ambient temperature permitted by the manufacturer's specification, or 25 °C, whichever is greater.<br>Add note 2: For equipment to be operated at 2000m-5000m above sea leave, its temperature test conditions and temperature limits are under consideration. | Tma is 35 °C | Pass |
| | | | |